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**HINTS**  
**TO**  
**EMIGRANTS,**  
**OR A**  
**COMPARATIVE ESTIMATE**  
**OF THE**  
**Advantages of Pennsylvania,**  
**AND OF THE**  
**WESTERN TERRITORY, &c.**

**BY**  
**JOHN LORAIN,**  
*Of Philipsburg, Centre County, Pennsylvania.*

**PHILADELPHIA:**  
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1889.

JOHN W. B. B. B.  
1889  
1889



Eastern District of Pennsylvania, to wit.

**BE IT REMEMBERED,**—That, on the seventh day of December, in the forty-fourth year of the Independence of the United States of America, A. D. 1819, John Lorain, of the said District, hath deposited in this Office the Title of a Book, the right whereof he claims as Author, in the words following, to wit—

**Hints to Emigrants, or a Comparative Estimate of the Advantages of Pennsylvania, and of the Western Territory, &c** by John Lorain, of Philipsburg, Centre County, Pennsylvania

In conformity to the Act of the Congress of the United States, intituled, “An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned.”—And also to the Act, entitled, “An Act supplementary to an Act, entitled, ‘An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned,’ and extending the benefits thereof to the arts of designing, engraving, and etching historical and other Prints.”

**D. CALDWELL,**  
Clerk of the Eastern District of Pennsylvania.

# HINTS

TO

## Emigrants, &c.

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### CHAP. I.

THE Letters, written from Illinois, by Mr. Morris Birkbeck, are well calculated to mislead emigrants from England, as well as to confirm reports which have been long and industriously propagated through the Atlantic states. They promise the farmer prodigious advantages, from settling in the western country, and especially on the prairies, and other flat rich grounds, which seem to have been formed by some tremendous convulsion of nature, and subsequent deposition of ages. The late earthquake in the western country caused prodigious alarm in Ohio, as considerable damage was done to some of the buildings there.

It was, however, much more destructive lower down. On the Mississippi considerable tracts of land were sunk so low, as to remain covered with water. The rich matters deposited by the rivers, however, will, at some future day, raise those grounds high enough for cultivation. The causes which produce such awful convulsions of nature, often continue long to exist, and also to act, though sometimes at very distant periods. These considerations alone would be sufficient to prevent me from settling in the western country. The storms there, if we may believe repeated, and seemingly well authenticated accounts, are so severe as to beggar all description, and produce incredulity in the middle Atlantic states, where nothing like them has yet appeared.\*

But to return. The flattering promises mentioned above, have been rendered still more encouraging, as there are many situations which afford prairies covered with grass, and grounds adjoining them, on which there is a sufficiency of timber,

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\* Mr. Birkbeck, however, who, when he cannot invalidate, endeavours to render less serious any important fact, by gaily sporting with it, says, (while grossly and very impiously ridiculing religion,) "After this deplorable account (of religion) you will not wonder when you hear of *earthquakes* and *tornadoes* among us." See his Letters, page 27.

In fact, if there were no very serious drawbacks on these flattering promises, it would seem, that every thing the farmer could reasonably expect, is to be realised by emigrating to a country, favoured with such highly important advantages ; especially as the climate is as well calculated as the soil, to promote the luxuriant growth of the most valuable plants cultivated by us.

Such have been the inconsiderate prejudices in favour of the western country, (until Mr. Birkbeck's letters furnished subjects for discussion, and important remark,) that it seemed useless to oppose the overwhelming torrent of deception. Mr. William Cobbett has made some interesting remarks on these letters, as has also Dr. C. B. Johnson. As there seems to be an opening, however, for further observation, I beg leave to offer some remarks on those highly important subjects, as well as on Dr. Johnson's description of the soil of Susquehanna county, and the management recommended to be pursued by the emigrants from England invited by him ; especially as what he has advanced on these subjects seems to be better calculated to mislead and ruin than to do good.

I shall first make some remarks on Mr. Birkbeck's letters and notes. This gentleman does not appear to have duly considered, that health



and a good market for the produce of the land, are of vastly more importance than a prodigiously deep and very rich soil. Those highly important facts, however, are not less true on that account. Where a market for the produce of the soil is, on an average, more than one half less than in other sections of the same country, and labour quite as high, or higher, it must be impossible to farm with tolerable advantage. If the whole of the work be done by the farmer and his family, he does not feel the effects of a very low market so much; yet, if he estimate his labour, and that of his family, at a fair price, (and this he certainly ought to do, in a country where labour is more valuable than the same amount in money,) and to this add the interest of his capital, he will soon see, that farming, under the circumstances noticed above, is a very bad business, when compared with what might be done elsewhere. Now, if this be true, what must be the situation of the gentleman, or in other words of the farmer, who neither works himself, nor derives any advantage from the labour of his family, but pays at the highest rate for every thing that is done on the farm? The answer is obvious, he must be ruined, unless he has provided sufficient funds (independent of his farm) for the maintenance of his family; for the difference in the price

of the products of the soil, between Illinois and the Atlantic states, is in itself much more than a good profit on farming.

•But here it may be said by the farmers, who have not duly considered the nature and properties of soils, or of the vegetation grown on them, or of the proper management of either, that the amount of produce obtained from these very deep and rich bottom lands, will compensate for the deficiency in price. In this, however, I mean to demonstrate that they are prodigiously mistaken.

The high estimation in which very rich and deep bottom lands are generally held, proceeds from the inconsiderate and truly irrational system of agricultural management, which still too generally prevails throughout Great Britain and this country, notwithstanding the many highly important improvements which have of late been made in that science.

Waving hill and dale, or ridge lands, as they are often called, are seldom more than moderately rich; for they are not in common much indebted to the rich deposition of ages, washed down from lands laying above them. They are, however, in general sufficiently fertile, when first cleared of their wood, to produce good crops of wheat and other small grain, followed by valuable crops of

the grasses. Now, practice long and well tried has determined, that this fertility may be not only preserved, by common good management, in the usual way, but also gradually increased ; and if a proper system of agricultural economy be pursued, such grounds may be enriched with incredible rapidity, to any desirable extent, with comparatively but very little labour and expense.

Before the agricultural use of gypsum was known, and practised in this country, the value of a farm depended very much on the quantity of bottom meadow attached to it. This kind of meadow however is now considered of but little consequence, unless it can be readily and well watered. In fact there are very many judicious farmers, who would rather have no bottom meadow on their farms, unless it were not subject to be inundated by the floods, which too generally prevail in grounds of this description. These floods frequently lay the grass flat, and mix considerable quantities of sand and other trash among it. This dulls the scythes, and causes very tedious and bad mowing ; often injures the hay so much, that nothing short of griping hunger can induce cattle to eat it. When those bottoms lay on rivers or creeks, the whole produce grown on them, (whether it be grass or grain,) together with the fences,

are sometimes swept off by the floods, before the crops can be removed from the harvest field. In some cases the stock, horses, cattle and sheep, grazing on the grounds, are also carried away, as are likewise the buildings, when they have been incautiously placed, where the water, on being raised to an unexpected height, overwhelms them.

If so great an alteration in the value of bottom meadow, has been effected from the use of gypsum, merely by enabling the farmer to obtain a sufficiency of pasture and hay from his high grounds, which had been rendered incapable of producing valuable crops of the grasses, in consequence of being exhausted by perpetual ploughing and cropping, why should it be considered incredible, that the moderately rich hill and dale lands may be so managed, as to be rendered much more valuable to the farmer, than the richest and deepest bottom or low flat grounds, now generally are, or ever will be?

The crops of small grain grown on these grounds, are seldom as large as those on moderately rich ridge lands. It is evident that the same kinds of grain grown on bottom or flat lands, are more subject to mildew, and the other diseases; these are promoted by certain causes frequently existing in such situations, although but little is

certainly known of them, except by their effects. If crops of this description escape these diseases, the grain is rarely as well filled, plump and heavy, as that grown on higher ground, provided the latter has not been exhausted by too severe cropping. Even the grasses themselves grown on the ridges, are commonly more freely eaten by live stock, than those grown in the bottoms, and afford more nutriment ; for in general there is less open, spongy, sour grass springing up among them. The higher grounds are also much more healthy for the cattle grazed on them ; but especially for sheep.

The waving hill and dale lands situate in the same climate as the low level grounds, are commonly drier, consequently more favourable for the growth of winter grain. The water falling or running on the latter, cannot be so speedily drained. If the subsoil be retentive, as very frequently happens in such lands, the plants are still much more liable to be injured by an excess of moisture; arrested and powerfully acted on by frost, through the winter or early part of the spring. It should also be observed, that notwithstanding the soil and subsoil of a prairie may be calculated to filter off the excess of moisture falling or running on it, the texture of the soil is often too light, loose and open, to defend the roots of the wheat plant from the

destructive influence of frost, especially in a climate like that of the Illinois, where a rapid succession of hard freezing and warm thawing weather takes place. It is also well known that such a light, loose soil, is nothing like so friendly to wheat at any season of the year, as one of a firmer texture. Hence it is, that on such open, loose, light lands, the straw frequently falls, and the grain is light and badly filled. There is still, however, another cause which operates against wheat in the prairies, and other level lands. They have generally so little fall, that notwithstanding the surface may be undulating, much water often lays on the lower places in them, or so fully saturates them with moisture, throughout the winter and spring, that the wheat plant suffers more or less. This it would seem causes maize to be the principal aim of the farmer who occupies such lands, although he could with much greater ease and convenience grow wheat;\* and for the same freight, double the amount in money might be sent

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\* The seed for a crop of wheat costs vastly more than for a crop of corn, but is put into the ground with much less labour. Cutting, inning, and threshing an acre of wheat will cost much more than cutting off, setting up, husking, cribbing and threshing an acre of corn; the farmer however can thresh the wheat when he has little else to do, and labourers of all descriptions, as well as most mechanics, assist in getting in the harvest.

to market, in the latter grain, as could be sent in corn—an object of high importance, when the distance from the farm, to where the grain is shipped for a foreign market, is so prodigiously great. We may therefore conclude, notwithstanding Mr. Birkbeck's soil is both deep and rich, that if he has not overrated the averaged produce of this prairie, by estimating it at twenty bushels of wheat to the acre, he has not underrated it.

Now here I would ask any good farmer, who has lived on the hill and dale lands in the back parts of Pennsylvania, whether he could not readily preserve the fertility of any of the moderately rich ridge grounds there, so as to ensure an average of twenty bushels of wheat to the acre? and if he possessed a sufficient capital to keep a good stock of cattle and to cultivate the soil as it should be, whether he could not, by employing no other means than those in common use by good farmers, readily improve the land, so that the wheat would eventually very far exceed twenty bushels to the acre, while he was annually growing on the whole of the farm, such crops of grass, grain, &c. as best suited the rotation pursued by him?

I have grown much more than twenty bushels of wheat to the acre, on the hill and dale lands laying a mile and a half from Philipsburg immediately

after maize, the wheat sown while the corn plants were still standing on the ground. The maize also yielded much more to the acre than Mr. Birckbeck estimates as the produce of his prairie;\* and it was grown on land which had been considerably exhausted by very severe cropping, with but little attention to grass or manure. The ground was dunged for the corn, but no manure was applied for the wheat following it. The corn crop was larger than any that had been previously grown by me. It should however be candidly stated, that this did not proceed from any peculiar advantages derived from soil or climate; the plants were better arranged on the ground, and the management from first to last, was better calculated to promote the prosperity of the crop, than any I had practised before.

The frontier farmer may consider the hauling and spreading of the dung a very laborious business, and ought to be avoided; especially, as it but too commonly happens, that his father, and very likely his grandfather too, have taught him by precept and example, to build a cabin, clear

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\* His estimate is fifty bushels of shelled corn to the acre, and he seems to doubt whether he has not rated it too high. See his Letters, page 46.



land, plough and crop perpetually, until the grounds are so much exhausted, as no longer to produce crops worth half the value of the labour bestowed upon them. After this very extensive and inconsiderate injury has been done to the soil, these cultivators remove further back, in the fruitless search of a soil that will never wear out. As they find, however, that the very deep and rich bottom lands in the Atlantic states, have been in general already settled, and a very great many of them long since worn out, they bend their course to the western country, determined to risk the effects of agues, fevers, cholera morbus, and the whole train of fall complaints, to which such level, flat countries are subject; as well as to withstand the tormenting annoyance from swarms of musquitoes, prodigiously increased in size and vigour, by the very great excess of the same evils which produce the diseases so destructive to man. In fact, it would seem, that where fall complaints abound this insect also abounds, and that the one cannot extensively exist without the other. |

Now it is evident that the frontier farmer encounters all those evils and more, rather than employ a reasonable proportion of his time in gathering, saving, hauling and spreading manure, and giving proper attention to grass. It clearly appears, however, that Mr. Birkbeck is better inform-

ed than to admit the idea, that even the deep and rich soil of his prairie cannot be worn out, or that he expected, by settling on it, to save the labour of employing manure, for he tells us he means to apply dung for his wheat after the second crop of corn.\* But as he does not consider it prudent to take more than two crops of corn, and one of wheat, before recourse is had to manure, what could have induced him to sacrifice his own health and that of his posterity, as long as he or they may happen to occupy this very unhealthy country, when if he had settled on any of the hill and dale lands, in the interior or back parts of the middle states, where the soil was only moderately rich, and given the same attention to manure, with due regard to grass, he would, on an average of years, have gathered more produce from the same breadth of soil, and also have sold it at prices more than exceeding double, those he will be able to obtain in his present situation?

Here I beg leave to remark, that if I were to estimate the averaged crops of corn and wheat, which might be very readily obtained by good management in the usual way, from the hill and dale lands in the back parts of Pennsylvania, which in their native state were only moderately

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\* See his Letters, page 53.

rich, without any reference to Mr. Birkbeck's estimate of the crop expected to be grown by him, I should fix the the corn crop at 75 bushels per acre, and the wheat crop at about 30 bushels to the acre. From a highly improved system of management, however, both these crops would considerably exceed this estimate; and would be obtained with much less labour and expense, than arises from the best system of management now in general use.\*

If the value of health be duly appreciated, there can be no question, that a situation on the ridges is vastly preferable to one on deep rich bottom grounds or level land. On several of the rivers and larger creeks running through the back parts of Pennsylvania, there are very deep rich bottom grounds. Many of these are as fertile as any bottom lands in the western country, or any where else. The inhabitants living on them however, or even on the hills adjoining to them, are often sickly. It is thought that the eddies formed by the running of the waters, when those streams overflow, deposit an increased quantity of earth and other matters, on the banks which form the margin of

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\* For an explanation of this economical mode of management see my book on Agriculture.

the rivers and creeks, and that this causes the banks to become higher than the rest of the bottom grounds generally are, and the bottom to be lowest next to the hill bounding it. Be this however as it may, the banks of the rivers and creeks are commonly higher than any other part of the bottom, especially that part of it near to the hill; of consequence the water accumulated on the grounds, either by floods, rains, or the springs running out from the foot of the hills, cannot all run off at any time. The quantity is also considerably increased by the holes or sinks which are very commonly formed near to the hill. In those hollows and other inequalities in the soil, the water lodges, as do also the animal and vegetable matters washed into them. These become very putrid when the temperature favours a powerful fermentation, and a poisonous miasma is emitted, which proves very injurious to the health of the adjacent inhabitants. As hill and dale lands however generally predominate in the back parts of Pennsylvania, agues, fevers and bilious complaints, do not prevail, except in the immediate vicinity of the deep and rich bottoms formed by the depositions of ages, or near to mill or other ponds, where the materials mentioned above also accumulate, and the trees killed by damming up the water, add

considerably to the injurious mass. Hence it is that health so very generally prevails, in the back parts of this state, that the settlers seldom think of employing any precautions to preserve it, or prevent diseases. Neither does it appear to be generally known to them, (at least in the neighbourhood where I have resided for the last seven years,) that any one season of the year is more sickly than another. If experience has taught the settlers, on the ridge lands in the neighbouring counties, to form this distinction in the seasons, it is unknown to me.

I have given the more attention to the highly important subject of health, in consequence of being born, and having resided the first forty-two years of my life on the eastern shore of Maryland, where the sickly season of the year is often so conspicuous, that the inhabitants generally know full well when to expect it. The diseases common to this country evidently originate in the low level grounds, and the numerous rivers and creeks running through them. My constitution was very early in life greatly weakened, and debilitated by the diseases that prevailed there. Notwithstanding I have enjoyed a much better state of health since I removed to Pennsylvania, it would appear that nearly the same weakness and debility of

body still exist. From this I conclude that I did not leave the eastern shore soon enough, or that if I had removed to the high and more healthy parts of this state at first, I should have been stronger than I now am. These circumstances have induced me to give much attention to climate, and the local causes which either increase or alleviate the diseases to which some situations are subject. I therefore beg leave to observe, that if the farmers (where the grounds are yet to be cleared from their wood) would build on the hills, near to, or even adjoining the bottom, and leave a tolerably deep belt of planting, or rather of the timber, smaller trees, and shrubs, growing under its lofty shade, around the space necessary to be cleared for his dwelling, barn, and other farm buildings, also yards and gardens, barely of sufficient extent to supply his family with vegetables and fruit, this belt of planting would arrest the poisonous matters, arising from the putrid substances in the bottoms, or from mill or other ponds, as the case may happen to be, and greatly preserve the health of the family. Where small towns are intended to be built in such situations, a like belt of planting left round the space cleared for them, would greatly preserve the health of the inhabitants. It would seem, however, that simi-

lar belts of planting, introduced in the low and flat lands, or on the very extensive flat or level grounds in the western country, would not so extensively produce the same salutary effects; for in such large flats, the poisonous matters incorporated with the air, would be too considerable to be effectually arrested. Still there can be but little doubt, that if the buildings (even in those very unhealthy countries) were placed on the highest and driest ground, and surrounded by a belt of planting, and this compactly formed by the tall and smaller trees, and shrubs growing underneath the larger ones, that the health of the family would be better preserved, than if the building was not thus protected.

Marked instances have occurred of families and garrisons, which were previously healthy, becoming sickly, in consequence of cutting down an avenue of trees, or a more extensive wood, standing in a favourable direction, to arrest the destructive miasmata, arising from the putrid animal and vegetable matters existing in the neighbourhood. The prevailing theory is, that the matters floating in the atmosphere, which are destructive to human life, generally furnish nutriment for plants, and that trees, and other plants, have been organized, not only to arrest these matters, but also to con-

sume or apply them to the purposes of vegetable life, and it would seem that this theory is correct.\* It is of little consequence, however, whether the gaseous effluvia, injurious to the health of man, be consumed by the tops of plants, or merely arrested by them ; as in the latter case, it will sink, by its own specific gravity, to the soil, become incorporated with it, and taken up by the roots of the plants. In either case, what would be pernicious to the human race, becomes ultimately very useful to them, by promoting vegetable life.

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\* See my book on Agriculture, for some observations on this subject.



## CHAP. II.

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Notwithstanding Mr. Birkbeck had resided but a very short time in Illinois, previously to writing his Letters, it clearly appears, that he had lived long enough there, to become very intimately acquainted with the sickliness of the country. It however requires but little sagacity to discover this distressing fact wherever it exists. It is clearly exhibited by the pale, sickly, meagre countenance of almost every man you meet, in the fall of the year, unless the season has happened to be more healthy than they very often are.

A farmer who had been living in this settlement for some years previously to my removing to it, had and still has, some children residing in the state of Ohio. The repeated accounts received from them, of the fertility of the soil, created a desire in the old gentleman to settle there. It was however wisely considered, that it would be most prudent to explore the country before he removed his family. On his return home he inform-

ed me, that where the soil was good in Ohio, he found it quite equal to what had been said of it; but he had seen enough of that country to determine him not to remove to it. The lands were generally too level, and in many places so flat, that much water stagnated. Good springs were very scarce, and the water generally so bad, that he could scarcely drink it. At the public meetings, such as preachings, courts, &c. numbers had their heads tied up; and others exhibited evidently the effects produced by disease, in their pale, meagre, emaciated countenances. In this, and in other very sickly countries, whole families are sometimes so affected by fall complaints, that there is scarcely one among them well enough to hand another a drink of water.

These considerations induced him not to remove to Ohio; still he seemed resolved to leave this place, and did so soon after he returned. He removed back, however, in about two years, to the farm he had left. Since his return, one of his sons in law (who lived in the neighbourhood to which the old gentleman had removed) has purchased a farm here. He had sold off his property where he resided, with an intention of removing to Ohio, where several of his wife's relations live. It would appear however, that after more maturely consider-

ing the sickliness of that country, the markets for produce, &c. he finally preferred coming to this settlement.\* As he had formerly lived here several years, he knew it was healthy, that the iron works erected since he left the place provided a ready market for all the farmer had to sell, even to an egg, a head of cabbage, or a pound of butter; that if the produce increased more rapidly than iron, or other manufactories suited to the present state of the country, the navigation of the Mushanon had been lately cleared out, and that by this stream, the surplus produce of the soil might be transported from the town of Philipsburg into the Susquehanna, and thence as far as that river is navigable. He also knew that a turnpike road had been in part made, and was in other parts progressing, and that subscriptions had been nearly filled up for the remainder; that when finished, it would afford the most direct and best route from Philadelphia to Meadville, Erie, &c. that it would pass through this town, and in its course open an extensive body of hill and dale or ridge lands, part of which will be as readily cleared from its wood, and present no more obstacles to culti-

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\* Since writing the above, one of this man's brothers has also purchased a farm here.

vation, than is commonly met with in the back parts of Pennsylvania.

Now here I wish to be clearly understood. In exposing the errors propagated by Mr. Birkbeck and Dr. Johnson, I am determined to say nothing of the settlement in which I reside, but what is founded on fact, leaving the emigrant to shape his course to any place which may seem to suit his purpose best. At the same time, however, advising him to prefer the high and healthy parts of some one or other of the Atlantic states, to the level and sickly grounds of the western country.

Mr. Birkbeck says, "If it were so unwise to migrate westward, out of the tens (I was going to say hundreds) of thousands, who move annually from the eastern states into this western wilderness, we should hear of *some returning*." And again, "I have just read a statement of five hundred emigrants per week passing through Albany westward, counting from the first of September."\*

It is not to be rationally supposed that near the whole of these five hundred emigrants travelling to the westward, were going to what is generally called the western country. Many of them may,

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\* See his Letters, page 12.

and probably were bending their course to the back parts of Pennsylvania, New York, &c. It should also be recollected, that in common the greater part of an emigrant's family is children.

That many returned from the western country, is as well known to those living on the roads leading to and from it, as any other fact; and yet Mr. Birkbeck writes to his countrymen, who live at too great a distance to be better informed, as if nothing of this kind happened. There can be no doubt, however, that a very great many more would return from this land of sickness and premature death, were it not, that after expending a great deal of money, in removing to such a prodigious distance, the expense of returning would ruin them. Thus the lack of funds often compels the emigrant to remain a prey to disease and untimely death. He is nearly as incapable of returning, as multitudes are who have removed their families from England to this country, without first duly considering, whether their previous habits had fitted them to get a comfortable living in it. These families, while struggling with poverty and want, often wish and sigh to return, but alas! their funds are exhausted.

The deluded sufferers, however, have to blame land jobbers, and in numerous instances their own

countrymen, for leading them astray. The fertile imagination of too many British scribblers and projectors, who take a hasty ride through a part of our extensive country, or a transient peep at some one of the counties in it, quickly devises means by which the emigrant who settles in it, may readily become wealthy, and as readily contrives to convert our water falls, raw materials, coal banks, or minerals, seen and unseen, into manufactories sufficient to consume all the surplus products of the soil, that now are or may be hereafter realised, in the back part of the Atlantic states, or in the western country.

Mr. Hulme (whose journal has been very properly quoted by Mr. Cobbett to substantiate his judicious observations on Mr. Birkbeck's letters, &c.) has written inconsiderately enough on this subject. But the folly (to say the least that can be justly said of it) of the plan proposed by Dr. C. B. Johnson, for "metamorphosing such heavy articles raised in Susquehanna county as flour, beef, butter, cheese, &c. into some of the light effects of the mechanic's skill, and taking them to New York and Philadelphia for sale,"\* exceeds

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\* See Letters from the British Settlement

any thing that I recollect ever to have heard of before; but more of this hereafter, lest I should ramble too far from Mr. Birkbeck.

This gentleman tells us, "The English of both sexes, and strangers in general, are liable to some bilious attacks on their first arrival: these complaints seem, however, simple and not difficult to manage if taken in time."\* Then again in the next page, (as if attention to this subject was of the highest importance,) he enumerates among "the best things for an emigrant to bring out with him, simple medicines of the best quality." Again he observes in page 77, "A few simple medicines of good quality are *indispensable*, such as calomel, bark in powder, castor oil, calcined magnesia, and laudanum. Change of climate and situation will produce temporary indispositions,† but with prompt and judicious treatment, the complaints to which new comers are liable are seldom dangerous or difficult to be overcome, provided due regard has been had to salubrity in the choice of their settlement, and to diet and accommodation after their arrival."‡

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\* See his Letters, page 16.

† This I have never seen, unless the change was from a good to a bad climate.

‡ Salubrity of situation will supersede medicine, and every other precaution, which is not necessary in the most healthy situation.

However simple, or valuable, calomel and laudanum may be considered, when judiciously employed by a skilful physician, they and all other herculean medicines, are exceedingly injurious when freely administered by quacks, nurses, or even the heads of families, who have not long and attentively considered the prevailing diseases of the climate where they reside. This evil is also greatly increased by the frequent recourse which is had to medicine in such sickly situations.

In general Mr. Birkbeck will be found correct in observing, the diseases to which such settlements as his are subject, "are seldom dangerous or difficult to be overcome." It should be recollected however that, in common, it is not the immediate fatal consequences of fall complaints, that make them so very formidable. They sap and undermine the constitution, making regular inroads on it, until a sufficient breach is formed to admit a more destructive foe. Thus it often happens, that, notwithstanding the patient is cured of his fall complaint, his system has been so weakened by it, that he is frequently destroyed during the winter or early part of the spring, by some one or other of the inflammatory diseases which prevail in cold weather.

Here it ought to be observed, however, that those



sickly climates are not exempt from violent fall diseases, which seem to require as prompt and powerful remedies as does the yellow fever, and sometimes exhibit nearly or perhaps the same symptoms.

But I would ask, if Mr. Birkbeck had written his letters from the high and healthy grounds, in the back parts of Pennsylvania, whether he would have either seen or heard any thing there, which could have induced him to write, "that a stock of medicine carefully selected, was considered an indispensable part of an emigrant's stores, that he might be prepared to cure the complaints to which new comers are liable?" Now certainly neither Mr. Birkbeck nor any other gentleman, possessing common sense and observation, could have written any such thing. On the contrary, if he had said any thing about the health of either new or old comers, it would have been, that both were here in abundance, and from almost every part of Europe, and nothing had occurred to induce a belief that they were liable to any diseases, in consequence of a change in "climate or situation."

It would appear that this gentleman also holds out the idea, that after the constitution of the new comer has been hardened, or seasoned, by the diseases to which he is subject, he will be either

exempt, or less liable to them in future. This is a very great mistake, however, for the having had any of those diseases, very frequently predisposes the constitution to have them again. Many of those who have visited sickly countries have been taken with the fall complaints ; and after being roughly handled have been apparently radically cured ; but on returning to the healthy climate from which they came, they have been subject to periodical returns of the same diseases, for one, two, or even more years.

It would appear that the seasoning of which they speak in unhealthy climates may be more justly termed the commencement of decay, or the process by which the constitution of the hardy emigrant from a healthy country, is reduced nearer to a level with the debilitated constitution of the natives, who like reed bend before the blast, while the new comer, like the sturdy oak, powerfully resists the storm, but, like it, is too often overturned. It is certain, however, that people born and brought up in healthy countries, commonly much better withstand the repeated attacks of diseases, and live longer in sickly climates than the natives. The cause of this is evident. If the healthy emigrant survive the first severe shock, (very improperly called a seasoning,) his constitution in common remains much stronger than that of the natives,

who from early infancy have been exposed to an unhealthy atmosphere. This being the case, many of those who remove from healthy countries into sickly ones, after suffering more from what is called a seasoning, than would kill two or three of the natives, live to greater ages than they do, notwithstanding they are in common after this as subject to the diseases of the climate, as those who are born and reared up in it. Still it would appear that from causes, which do not seem to be well understood, some few, but prodigiously thinly scattered inhabitants, enjoy as much health, and to all appearance live quite as long in those sickly climates, as could have been expected if they had always inhabited healthy ones.

Mr. Hulme, who seems to say all he can in favour of the western country, and more especially of Mr. Birkbeck's settlement, observes, "I was rather disappointed, or sorry at any rate, not to find near Mr. Birkbeck's, any of the means of machinery, such as water falls, minerals, and mines; some of those however he may yet find."\*

The mines and minerals may yet be discovered, but if any streams of water fit for mills existed "near" to him, they would have been readily

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\* See Cobbett's One Year's Residence in America, b. 3. page 385.

found, as they must have been well known to the thinly scattered settlers in his neighbourhood. That Mr. Birkbeck does not expect to find any is evident, for he says, "there are no very good mill seats on the streams in our neighbourhood, but our prairie affords a most eligible site for a wind-mill: we are therefore going to erect one immediately."\* It is not probable that he would have had recourse to a wind-mill, if there had been only a tolerable site for a water-mill in his neighbourhood. To what extent he confines his neighbourhood, when speaking of mill seats, is unknown to me; but on another occasion he says, "our township is a square of six miles, and what may be properly called our neighbourhood, extends six miles round this township in every direction."† Here, if I understand him, he says, a square of 18 miles on every side of it, may be properly called the extent of his neighbourhood. Be this however as it may, it would appear, that the country to a very great distance is prodigiously flat, that common springs as well as streams fit for mill seats, are very scarce, for he appropriates "£ 200 for digging sundry wells,"‡ and in enumerating the conveniences attached to the cabins,

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\* See his Letters, page 38. † See do. page 36. ‡ See do. page 7.

he intends to build for his workmen, a well is mentioned.†

Now it would appear, that a country so very flat as to afford neither streams fit for mills, nor springs for the use of the families living in it, must be much more unhealthy than the one in which I was born. In by far the greater part of the latter, there are water mills sufficient for the convenience and comfort of the inhabitants; also springs, and many of them furnish a full supply of excellent water.

Volney, who has travelled through Ohio, Kentucky, Illinois, &c. seems to consider those countries very unhealthy, he says, "In the autumn of 1796, in a journey of seven hundred miles, I scarcely found twenty houses free from agues and fevers. All the banks of the Ohio, a great part of Kentucky, the shores of Lake Erie, the Genessee country, and its lakes and rivers, are annually infested by them. In a journey of two hundred and fifty miles from Cincinnati to Detroit, begun the 8th of September, in company with twenty-five persons, we did not encamp one night, without one at least of the party being seized with a periodical fever. This fever annually visits the

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† See his Letters, page 58.

garrison at Miami fort, where it has more than once assumed the form of yellow fever. These periodical fevers are not immediately fatal, but they sensibly enfeeble the constitution and shorten life.”\*

What Mr. Birkbeck himself has written, however, is alone sufficient to convince any person who has given but a slight attention to what marks a sickly country, that the state of Ohio must be generally very unhealthy, and the Illinois still much more so.

He writes in the neighbourhood of Chillicothe, “I hear much of the agues and bilious fevers by which strangers are said to be naturalized or seasoned in these new countries.”† Here again according to his general practice he tries in vain to show, that by proper care these evils may be escaped.

But here I beg leave to impress a highly important fact on the minds of my readers, more especially on Europeans, to wit: That a “country” being “new,” or unsettled, does not make it sickly, unless the causes that produce diseases prevail in it. This has been as clearly demonstrated in the settlements made, and now making, in the back parts of Pennsylvania, as any other fact. The

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\* See his Views, page 229.    † See his Notes, page 81.

people who have settled in the midst of our lonely and very extensive forests, such as that commonly called the wilderness, and commencing but a few miles to the westward of this place, are quite as healthy as those are who reside here, or where population much more abounds.

Mr. Birkbeck's description of a hunter and his family, (with whom he lodged, when he crossed the little Wabash, near to his prairie,) together with the idea he holds out, that the extent of the clearing may be determined by the complexion, &c. of the people living on it,\* may serve to show, how little reliance can be placed on the too hasty remarks made and published by him.

Of the hunter, he says, "This man and his family are remarkable instances of the effect on complexion, produced by the perpetual incarceration of a thorough woodland life. In his general habits, the hunter ranges as freely as the beasts he pursues. The cabin in which he entertained us, is the third dwelling he has built within the last twelve months: and a very slender motive would place him in the fourth before the ensuing winter. Shut up from the common air, buried in the depths of a boundless forest, the breeze of

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\* See his Notes, page 140.

health never reaches these poor wanderers. They are tall, pale, like vegetables that grow in a vault, pining for light. The man, his pregnant wife, his eldest son, a tall, half naked youth, just initiated in the hunter's art; and three daughters growing up into great rude girls, and a squalling tribe of dirty brats of both sexes, are one pale yellow, without the slightest tint of health or bloom. In passing through a vast expanse of the back woods, I have been so struck with this effect,\* that, *I fancy*, I could determine the colour of the inhabitants, if I was apprised of the depth of immersion; and vice versa, I could judge of the extent of the clearing, if I saw the people. The blood, *I fancy*, is not supplied with a proper dose of oxygen from their gloomy atmosphere, crowded with vegetables, growing almost in the dark,† or decomposing, and in either case abstracting from the air the vital principle.”‡

If this gentleman had made himself acquainted with the economy of nature in the management of

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\* It seems Mr. Birkbeck saw the “effect,” but was prodigiously mistaken in the cause.

† Here this gentleman exaggerates prodigiously, for even where the trees and shrubs stand closest together, light predominates so much, that nothing like “darkness” is to be seen, except at or near night.

‡ See his Notes, pages 138, 139, & 140.



our forests, in place of forming an hypothesis, which he indirectly acknowledges to be founded on "fancy," he might have discovered, that the smaller plants growing under the shade of the larger ones, have been so organized, as to prosper and perform all their functions there; and that if any plant happened to spring up, which had not been organized to prosper, and mature its seed, in the light and heat to be found where it grew, it soon perished, and the remaining seed scattered by its predecessors, previously to the prevalence of too much shade, continued torpid until art or accident removed the obstacles, to a sufficiency of light and heat.\* Nothing can well be more obvious to those who give attention to the economy of vegetables, than that nature has constructed different plants, so that many of them at least perform their functions best, in the different grades of light and heat especially suited to the economy of them. Of consequence the gaseous effluvia arising from the decay and decomposition of vegetation, &c. &c. is as effectually absorbed by the living plants in our forests, and oxygen added to the atmosphere as happens any where else.

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\* See my book on Agriculture, for how nature manages the forests.

It so happens however in unhealthy countries, such as the Illinois, that the gaseous effluvia, arising from the fermentation and decomposition, of the remains of dead animals and vegetables predominate so exceedingly over the oxygen and other constituents which form a healthy atmosphere, that bilious complaints very generally prevail. Whole families are frequently severely afflicted by them, at one or nearly one and the same time; and the bile is so often copiously distributed through the system, that the skin is tanned a sickly looking yellow by it; and so effectually by frequent repetition of the fall complaints, that notwithstanding the persons thus affected may remove early in life to a healthy situation, their skin has been so thoroughly and permanently stained, that it commonly continues yellow, and an attentive observer may generally determine, that they emigrated from an unhealthy country or neighbourhood.

It would seem however that Mr. Birkbeck, in this his flight of "fancy," intended to display his acquaintance with science to the ignorant Americans, of whom he says, "scientific pursuits are, generally speaking, unknown where I have travelled."\*

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\* See his Notes, page 153.

But here it may be proper further to remark, that in the high and healthy grounds in the back parts of Pennsylvania, neither the farmer who occupies the most circumscribed clearing, nor the hunter is to be distinguished, by being "tall,\* pale yellow, without the slightest tint of healthful bloom, like vegetables growing in a vault pining for light." Such emaciated miserable looking beings, are only to be found in those parts of America where agues, and fever, and bilious complaints greatly prevail.

The back part of Pennsylvania in its native state is nearly one continued forest. In many parts of it the timber is heavy, and stands thick on the ground. In the states of Ohio, Indiana, and Illinois, nature has formed a prodigious extent of open grounds and covered them with grass. It is on the borders of these extensive prairies the hunters commonly settle, that the few cattle owned by them, (perhaps not more than a cow,) may be readily supplied with grass and hay. How happens it, then, that the farmer, with but a trivial clearing, and the hunter with much less, or perhaps none at all, is healthy and looks so too, in the back parts of Pennsylvania, in the midst of

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\* Here I suppose the gentleman means slim, or both tall and slim.

an extensive forest, while the same description of men in Illinois, living where light abounds, are such miserable sickly looking beings as Mr. Birbeck says they are? The answer is obvious; the back parts of Pennsylvania are very healthy, and it would appear that Illinois must be more sickly than even the states of Ohio, or Indiana, especially where this gentleman's prairie is situated. It lays lower down the river, and is of consequence lower and more level land.

This gentleman says, "Near Piketown is a small cultivated prairie, the first I have seen: it contains about two hundred acres of rich bottom, and nearly the whole of it is covered with the finest Indian corn, neatly cultivated. The surrounding hills crowned with their native wood, take their tone from the garden-like appearance of this enclosure; and the scene retains nothing of wilderness, except in the untameable luxuriance of vegetation; but it has been unhealthy."\* Here again he endeavours to show that this sickness may be escaped, if proper regard be had to situation, &c. It will be found, however, that the unhealthy gaseous effluvia, so generally and extensively generated, from the multiplied causes

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\* See his Notes, pages 84 and 85.

existing in almost every neighbourhood, in countries that are very unhealthy, will spread the diseases arising from them to a considerable distance, through grounds, where those injurious causes do not exist, and where the inhabitants would escape the fatal diseases, if the lands occupied by them were surrounded to a sufficient extent, with grounds equally as well calculated to promote health.

Again he observes, "We have remarked, en passant, that people generally speak favourably of their own country, and exaggerate every objection or evil, when speaking of those to which we are going. Thus it may be, the accounts we have received of the unhealthiness of this river, and its vicinity, have been too deeply coloured. We are accordingly greatly relieved by the information we have received here, on this subject. The Wabash has not overflowed its banks this summer, and no apprehensions are now entertained, as to the sickly season of August, and September."\*

If this gentleman had been clearly convinced, that, "the account he had received of the general unhealthiness of the river and its vicinity, were too deeply coloured," he might with some appa-

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\* See his Notes, pages 115 and 116.

rent propriety have been greatly relieved. It was, however, a great weakness to feel any other relief than a stranger just passing through the country would have done, on hearing that as "the Wabash had not overflowed its banks that summer, no apprehensions were in consequence of this entertained, as to the sickly season of August, and September."

We find however that he had not been so greatly relieved as he seemed to imagine; for very soon after this he remarks, "This is a critical season of the year, and we feel some anxiety for the health of our party, consisting of ten individuals. July and the two succeeding months, are trying to the constitutions of new comers, and this danger must be incurred by us; we hope, however, under circumstances of great mitigation. In the first place, the country is at present free from sickness, and the floods were too early in the spring, to occasion any apprehensions of an unhealthy autumn to the inhabitants."\*

Here this gentleman's hope of escape seems to be grounded only on "circumstances of great mitigation." He also seems to be convinced that the diseases of the climate are not confined to new

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\* See his Notes, pages 124 and 125.

comers; and in this he is correct, as in sickly countries neither new nor old comers are exempt.

But again, "Princeton affords a situation for a temporary abode, more encouraging than any place we have before visited in this neighbourhood. It stands on an elevated spot, in an uneven or rolling country, ten miles from the Wabash, and two from the navigable stream of Patoka. Though healthy at present to the inhabitants, they can hardly encourage us with a hope of escaping the seasoning, to which they say all new comers are subject. There is a convenient house to be let for nine months, I think we shall engage it, and should a sickly season come on, recede into the high country about one hundred miles back, returning here to winter when the danger is past."\*

Now if Mr. Birkbeck apprehended, that he should be obliged to fly for his life from Princeton, (which is only thirty-five miles distant from his prairie,) one hundred miles back, at a time when every circumstance seemed to favour the health of it, and the country generally, has he not vastly more to fear, from living in his prairie through sickly, as well as more healthy seasons? Especially as the situation on which Princeton is

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\* See his Notes, pages 125 and 126.

built, seems to be quite as favourable to health, or indeed more so than his prairie; that is, if we may judge from what he tells us of both situations, and of the rivers and grounds in the neighbourhood of them, laid down in the map annexed to his letters.

He says, "Our cabin stands at the edge of the prairie just within the wood; thirty paces to the east the prospect opens from a commanding eminence over the prairie, which extends four miles to the south and south-east, and over the woods beyond to a great distance."\* He also informs us that the prairie is situate between the Big and Little Wabash, in the neighbourhood of Skillet Fork; that Shawnee Town lays below it, where all those streams, after they have united, empty into the Ohio river. And that "the Little Wabash is a sluggish, scanty stream, (at the time he wrote, to wit, August,) but for the three months of the latter part of winter and spring, it covers a great space by the overflow of waters collected in a long course;" that, "the Skillit Fork is a river of similar character: and the country laying between them must labour under the inconvenience of seclusion for many months every year. It is a dreadful country on each side of the Skillet

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\* See his Letters, page 35.



Fork, flat and swampy, so that the water in many places, even at this season, (August,) renders travelling disagreeable.”\*

Of Shawnee Town, he says, “This place I account as a phenomenon, evincing the pertinacious adhesion to the spot, where it has once fixed itself, of the human animal. As the lava of Mount Etna cannot dislodge this strange being, from the cities which have been repeatedly ravaged by its eruptions, so the Ohio, with its annual overflowings, is unable to wash away the inhabitants of Shawnee Town. Once a year, for a series of successive springs, it has carried away their fences from the cleared lands, till at length these they have surrendered, and cease to cultivate. Once a year the inhabitants either make their escape to higher lands, or take refuge in their upper stories, until the waters subside, when they recover their position on the desolate sand-banks.† Here is the land office for the south-east district of Illinois.”‡

The foregoing description of Shawnee Town,

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\* See his Notes, pages 143, 144 and 145.

† It is to be presumed, that these people have exhausted their funds, by emigrating to this wretched spot, and by building there; therefore prefer encountering all the evils described by Mr. Birkbeck, to removing elsewhere, without the means of obtaining even a scanty support.

‡ See his Notes, pages 146 and 147.

and of the rivers and grounds for many miles around Mr. Birkbeck's prairie, seems to favour the opinion, that Princeton is the highest, driest, and healthiest situation of the two ; especially as the latter stands not only on an "elevated spot," but also in an "uneven or rolling country."

The account given by Mr. Hulme, of Mr. Birkbeck's prairie, and the grounds in the neighbourhood, seems to be unfavourable to it. This gentleman, in his journal of the 28th of June, says, "Left Princeton and set off for Mr. Birkbeck's in Illinois, about thirty-five miles from Princeton. Before we got to the Wabash, we had to cross a swamp of half a mile wide. We were obliged to lead our horses, and walk<sup>up</sup> to our knees in mud and water. Before we got half way across we began to think of going back ; but there is a sound bottom under it all, and we waded through it as well as we could. We soon after came to the banks of the Great Wabash, as the ferry boat was crossing over with us, I amused myself by washing my dirty boots. We soon entered into the prairie lands, up to our horses' bellies in fine grass.\* Some of these we passed over were wet prairies, but

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\* That is coarse, open, spongy grasses generally ; neither fit for grazing nor hay. They will, however, keep the emigrants' cattle, &c. from starving, until the cultivated grasses can be introduced.

they are dry at this season of the year, and as there are none of them flat,\* they need but very simple draining to carry off the water.”†

This gentleman found Mr. Birkbeck engaged in ditching and banking, and observes, that “The whole of his operations had been directed hitherto (and wisely in my opinion) to building, fencing, and other important preparations. He had done nothing in the cultivating way but make a good garden, which supplies him with the only things that he cannot purchase, *and purchase too, with more economy than he could grow them.* He is within twenty miles of Harmony, in Indiana, whence he gets his flour, and all other necessaries, (the produce of the country,) and therefore employs himself much better, in making barns, houses, and mills for the reception and disposal of his crops.”‡

Here Mr. Hulme, in his zeal to advocate Mr. Birkbeck’s proceedings, seems to have forgotten, or not to have seen, that in the country where produce of every description may be bought and

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\* There are many prairies, however, that are lower in the middle of them than any where else; this must cause late planting of corn, and proves injurious to winter wheat, even when the ground is drained, as well as it may in this case be readily done.

† See Cobbett’s Year’s Residence in America, b. 3. page 332.

‡ See Cobbett’s Year’s Residence in America, b. 3. page 333.

conveyed at a very considerable expense twenty miles, for less money than it can be grown, by the gentleman who pays for every thing that is done on his farm, must eventually ruin him if he persisted in cultivating it, under such prodigious disadvantages. This highly important fact however is not less true, in consequence of its not being duly appreciated by Mr. Hulme. Yet it may have occurred, that Mr. Birkbeck had seen what would happen, and was acting accordingly; for Mr. Hulme did not see, on the 28th of June, the one hundred acres of corn, he had promised to plant in the spring, nor indeed any appearance of cultivation, except in his garden.

It would seem however from the following paragraph, which appeared in Mr. Zachariah Poulson's paper, of the 3d of August, 1819, that Mr. Birkbeck's views of farming, have been from some cause or other greatly altered.

*" English settlement in Illinois.*

" We regret to learn, that a misunderstanding exists between Mr. Birkbeck and Mr. Flower, who accompanied him to Illinois from England, that threatens materially to impede the prosperity of that promising settlement. Mr. Birkbeck, our informant says, is entirely taken up with his pen, whilst Flower is engaged at the plough, and in

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conducting a country store; he has become very popular; and Mr. B. is therefore now only considered a secondary person. The emigrants at this settlement are chiefly employed in preparing live fences, and have made but little progress in the cultivation of the soil: not thirty acres of which have been yet broken up."

[*Washington Gazette.*

### CHAP. III.

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Mr. Birkbeck in his Notes, page 5, says, "Being neither willing nor disposed to combat the extremes of heat and cold which prevail to the east of the Allegheny mountains, I have predetermined to pitch my tent to the westward of that ridge, and the southward of Lake Erie, under a climate recommended by all travellers, as temperate, salubrious and delightful."

Land jobbers and others, highly interested in that part of the country of which he speaks, may have "all" said it was temperate, salubrious, and delightful. I believe, however, this gentleman will be puzzled to find one impartial well informed historian, who has spoken so favourably of it.

I have mentioned before, page 34, the very alarming description Mr. Volney has given of the sickness of the western country. Of the temperature and the changes in it he tells us, "In Kentucky and through the vale of the Ohio even in January, they experience hot sultry days, when

the mercury rises from 66 to 72, with the wind at south and south-west, and a clear sky. The heats become great and permanent within forty days from the equinox. For sixty or seventy days ensuing the summer's solstice, they prevail with great intensity, the thermometer ranging between 90 and 95. This period is tempestuous, storms almost daily occurring in Ohio, and these storms rather aggravate than moderate the heat. The rain which descends in torrents, gives only momentary relief to the parched soil, and the heat of the ensuing day obliging it to reascend, it forms heavy morning mists, which afterwards become clouds, and thus continually renew the electrical process. The river water is at the temperature of 64 or 66. After a night of dead calm, a breeze is called up from the west or south-west, between eight and ten in the morning, which dies away about four in the afternoon."\* This gentleman speaks very differently however of what happens in the middle Atlantic states, to wit, "The intense heats of the day are usually succeeded by a night of piercing cold.† It has been noted, that

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\* See his Views, pages 124 and 125.

† He was not accustomed to our climate, therefore the sudden but very salubrious change was more sensibly felt by him. I have never

the higher the mercury rises in the afternoon, the lower it sinks at day break the ensuing day, three o'clock in the afternoon and morning, being the extremes of the diurnal temperature. When at mid-day, the glass has risen to 86, and even to 90° degrees, it has *sometimes* fallen, on the ensuing night, to 65 and 60. The descent from 80 *degrees* in the day time is *usually* to 68 at night; but from 60 it sinks only to 56. These changes are most apt to occur immediately after thunder storms, with or without rain. There are very few evenings in the year on which fire would not prove agreeable.\*† This can only be said (in the maritime country) of those not accustomed to our climate, or of the old and debilitated; and not even of them, (at least but very rarely,) in the months of June, July, and August. If the present summer however, (to wit, 1819,) be excepted,

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been injured by these sudden changes from heat to cold, when I was careful to change my clothing in time to suit the temperature, or merely to put on an over-coat. On the contrary, these sudden changes have been exceedingly beneficial to me (a weakly man) while I have often noticed the robust and strong, who have neglected this very simple and easy precaution, greatly injured by them.

\* This height is evidently spoken of as uncommon when 90 and 95 is mentioned, as the common range of the thermometer, for sixty or seventy days ensuing the summer's solstice in Ohio.

† See his Views, pages 115 and 116.



there has been (generally speaking,) but few evenings since I have resided in Philipsburg, that fire would not have been an agreeable companion to the old or those whose pursuits were sedentary."

This gentleman says, "Of the hills in western Pennsylvania, there the cold is more equable in winter, and the heat less intense in summer; and in either case, the air is more pure, wholesome, and respirable, than in the low country, where the atmosphere is moist and dense."\* Now if the foregoing observations be correct, neither the storms nor the rains mitigate the heat in Ohio. Whereas in the same line of latitude on the sea coast, as well as at a distance from it, the same causes seldom fail to reduce the temperature greatly, and on the hills in western Pennsylvania, the climate is far more uniform, pleasant, and salubrious, than it is on the more level, and lower grounds, nearer to the sea.

Mr. Birkbeck himself however says, "Extreme cold does not seem to belong to us; but we have some very severe paroxysms of it when the wind sets in from the north-west, the thermometer falling rapidly to 7 or 8° below zero: but when it shifts

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\* See his Views, page 116.

to another quarter, mild weather returns, and we have clear sunshine, with the thermometer frequently *above*  $50^{\circ}$  in the shade."\* On the 1<sup>th</sup> of February, he writes, "The judge and the bar are now working their way to the next county seat, through almost trackless woods, over snow and ice, with the thermometer about zero."† Again, "We have had an unusually severe winter. The mercury has once been  $12^{\circ}$  below zero, and several times approaching that extreme."‡

Here the variation from the warmest to the coldest weather in the winter, makes a difference of  $62^{\circ}$ , whereas the greatest difference in Pennsylvania, east of the mountains, at the same season of the year, mentioned by Mr. Volney, and for which he seems to quote Dr. Rush, is  $41\frac{1}{2}^{\circ}$ . I will however quote what he says on this occasion, to wit, "In winter, especially in January and February, the temperature often varies fourteen, eighteen, and even twenty-eight degrees, in the course of eighteen hours, which has a pernicious influence on health. In twenty-four hours on the 4<sup>th</sup> and

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\* See his Letters, page 42.

† See his Letters, page 68

‡ The winter of 1818, when this letter was written, was not marked for its severity here.

5th of February, 1788, the mercury sunk from 37 to  $4\frac{1}{2}$  degrees below zero; a difference of  $41\frac{1}{2}$  degrees.\*\*

Now if such changes in temperature, as Volney says take place in the winter, east of the mountains, "have a pernicious influence on health," how much more pernicious must be the far greater changes in temperature which occur at the same seasons in Illinois: especially as the complaints that abound there, in the fall, greatly weaken the system, and powerfully predispose it to be severely affected by the inflammatory complaints, which prevail there in the winter.

Dr. C. B. Johnson remarks on what Mr. Birkbeck says of the extremes of heat and cold in Illinois in the winter, "This is a degree of cold that might not be expected in that latitude, and is to be accounted for, only by the flat, unsheltered situation of the country,† which receives the piercing north-west wind, in its full force, and with all its collected cold, from the icy mountains at the head of the Mississippi and Missouri."‡ These causes

\* See his Views, pages 114 and 115.

† This agrees with Volney, who says, "between the Wabash and the Mississippi are little else than immense flats or natural meadows." See his Views, page 23.

‡ See his book, page 138.

alone, however, do not seem sufficient to account for the excessive changes in temperature at Mr. Birkbeck's prairie: therefore some observations will be made hereafter on this subject.

Volney tells us, that "The temperature of the vallies of the Ohio and the Mississippi is warmer, in the proportion of three degrees of latitude, than that of the maritime districts."\* "For the principal fact I borrow Mr. Jefferson's own words," he then quotes this gentleman, to wit, "It is remarkable, that proceeding in the same parallel of latitude westwardly, the climate becomes colder, in like manner as when you proceed directly north. This increase of cold continues till you reach the top of the Allegheny, which is the highest land between the ocean and the Mississippi. Thence descending the same parallel to the river, the change is reversed, and, if we credit travellers, it becomes warmer than it is in the same latitude on the sea coast. Their testimony is strengthened by the vegetables and animals known to subsist and multiply there naturally, which does not happen on the coast. Thus, catalpas grow spontaneously on the Mississippi, as far as the latitude

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† See his Views page 110.

37°, and reeds as far as 38°; paroquets winter on the Sciota, in latitude 39°. In 1779, the thermometer was 90 degrees at Monticello, when it was 110 at Kaskaskias.”\*

Mr. Volney goes on to say, “Naturalists have observed in comparing the places, on either side of the Alleghany, that where certain plants grow spontaneously, that there is a difference between them, equivalent to three degrees of latitude, in favour of the valley of the Ohio and Mississippi. Trees and herbs are found on the western side of the mountains, three degrees further north, than the same products are found spontaneously growing on the eastern side.”†

He says, the cause of this difference in temperature is “the prevalence of the south-west wind throughout the year. This current ascends by the course of the Ohio, and comes up by the way of the Mississippi, from the gulf of Mexico. This wind is hot and tempestuous in the valley of the Kenhawah, the temperature of which it raises, being checked by the ridges of the mountains. Its direction conforms to the winding course of the Ohio, having sometimes the direction of west and

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\* See Volney's Views, pages 119 and 120.

† See Do. 122.

south ; but it is always one and the same current of air, and prevails for five sixths of the year, leaving to the other winds only one sixth. It extends with little variation, to a great distance. We must proceed very far north before we meet with any remarkable diversity, or find any correspondence between the temperature and seasons of the maritime and inland regions. Even at Niagara the seasons are so mild, that severe cold does not prevail more than two months, though this is the loftiest part of the great platform. This circumstance agrees not with the laws arising from elevation.

“The winter of Genessee, as it has been described to me, partakes not of the rigours experienced in New Hampshire, but agrees with the winters at Philadelphia, three degrees further south. In that city, it has often been remarked, that frosts occur more or less, every month in the year, except July.\* Now this cannot be said of any place in Genessee, farther south than the Oneida village, latitude  $43^{\circ}$  ; whereas, east of the mountains, at Albany, frost occurs every month of the twelve, and

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\* Here, I presume, Mr. Volney means that frost has occasionally occurred there in every month of the year except July. Be this however as it may, it certainly does not occur in that place regularly every month except July.

peaches and cherries refuse to ripen. At Montreal, in latitude  $43^{\circ} 20'$ , the temperature is much higher, and the cold of shorter duration, than east of the mountains, in Maine and Nova Scotia. Snow lies not on the ground so long, by two months, as at Quebec, though this town is lower down the river; and this is an exception to the law of elevation, and for this, therefore, some other cause must be sought.”\*

And again, “The southwest in the vallies of the Mississippi and Ohio, as far as the St. Lawrence, is more uniform and simple in its progress. It prevails, we may venture to say, for ten months out of the twelve, from Florida to Montreal. For two months only, at the winter solstice, the northwest rule the air. The south-west, as well as the south, is the hot wind of Canada and Genessee, but it properly merits this name only in summer, for it cools as the sun recedes from the zenith, or the land verges toward the pole, and is hottest near the gulf of Mexico, which is its focus.†

“Being so near this focus, it raises the temperature of Lower Louisiana in winter so much, that the intermeddling winds of the north, north-

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\* See his Views, pages 123 and 126.

† See his Views, pages 149 and 150.

west and east, cannot check the growth of the sugar cane. The excessive heats of summer bring with them almost daily storms ; tempestuous clouds roll from the mouth of the river, and from the south-west parts of the gulf of Mexico. These clouds rise some minutes earlier every day, so that, in the middle of August, thunder is heard about two o'clock in the afternoon. Heavy rain accompanies its tremendous peals. The south-west wind drives these tempestuous clouds toward Kentucky and Tennessee, where they meet and mingle with others exhaled from the rivers, swamps, and lakes, and thus the gloomy canopy is uninterruptedly stretched as far as Canada.”\*

Again, this gentleman says, “The Allegheny is the shore of an airy lake, which, below the level of the top of this bank, is at rest, unaffected by the movements of the stratum above it. Hence the south-west wind traverses the valley of the Mississippi and Ohio, Kentucky, and the contiguous countries, as far as the valley of the St. Lawrence, by which it flows off, while the north-west stream glides over it diagonally, and, overtopping the highest Allegheny, pours down on the maritime

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\* See his Views, pages 150 and 151.



country, where its force is augmented by its own specific gravity, the slope of the earth's surface, and the vacuity above the ocean in the south-east. The same movements occur in Lower Canada, and over the St. Lawrence. Here the reigning wind is the south-west, and next to it, the north-east. Very often the north-west is unknown in Quebec, while it blows in Maine and Nova Scotia, and this could only take place by gliding over the concave bed of the St. Lawrence, leaving undisturbed the the air in this bed."\* Again he says, "I have now, I think, clearly proved that the south-west wind of the United States, is the tropical or trade wind with an altered course, and that of consequence, the air of the western country is imported from the West Indies, through the gulf of Mexico, and thus it is distinctly seen why the temperature of the western regions is higher, by three degrees of latitude, than that of the maritime country, though only parted by a ridge of mountains."†

This gentleman likewise tells us, "The region comprised between Ohio and lake Erie is a vast

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\* See his Views, pages 185 and 186. Aerial voyagers observe in their progress upward, different currents of air gliding over, and leaving undisturbed, other currents of the same fluid.

† See his Views pages 169 and 170.

plain, whose uniform inclination is almost insensible, a fact which is supported by the following appearances :

“ First, The Ohio, in its annual inundations, before it reaches the level of the first bank, that is to say, before it rises to a height of fifty feet from its bottom, mounts up the great Miami to Greenville, a distance of upward of 72 miles. Of this fact I was assured by the officers at Greenville, the head quarters of General Wayne, in 1794.

“ Second, During the vernal floods, the north branch of the great Miami mixes its waters with the southern branch of the *Miami of the Lake*. The carrying place, or *portage*, of a league, which separates their heads, disappears beneath the flood, and we can pass in canoes from the Ohio to Lake Erie, as I myself witnessed in 1796.

“ Third, At Loromier’s Fort, or store, an eastern branch of the Wabash serves as a simple canal to connect the two Miamis ; and the same Wabash, by a northern branch, communicates, above Fort Wayne, in the time of inundation, with the Miami of Lake Erie.

“ The inference from these facts is, that the land lying between the Ohio and the lakes never exceeds the elevation of one hundred feet above the first bank of the river, nor of seventy feet

above the second; which is the general level of the country. Consequently a mound only two hundred feet high placed at Silver Creek, would suffice, not only to spread out the waters to Lake Erie, but also extend them from the rampart of the Allegheny to the north of Lake Superior.”\*

Agreeably to the above remarks, Mr. Birkbeck's prairie must lay vastly higher than the lands near to the sea coast, east of the Allegheny mountain, in the same line of latitude; consequently must be considerably colder, when under the immediate influence of the north-west wind, notwithstanding it is much warmer when the south-west wind generally prevails. Mr. Volney estimates the distance from Pittsburg to Louisville, computing the turns of the river, at not exceeding 590 miles, and says, the difference in the level throughout this extent is only about two hundred feet. Now as Mr. Birkbeck's prairie lays in a direct westerly line with Louisville, and if my memory be correct, Pittsburg stands six hundred feet above the level of the Atlantic ocean, there can be no doubt, but the difference in height, between the grounds bor-

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\* See his Views, pages 73, 74 and 75.

dering on the sea and his prairie, is very considerable.

The leading causes in Mr. Volney's theory, of the influence of the winds on the American climate, but more especially of the western country, are the ridges of the Allegheny mountains; he says, "The grand division is formed by the mountains, which stretch from the mouth of the St. Lawrence to the frontier of Georgia, disparting the eastern and western waters, and forming a lofty terrace or rampart between the Atlantic and Mississippi, the maritime and the fluvial districts. The length of this belt or band may be computed at twelve hundred miles, and its breadth, which varies much, at from ninety to an hundred and fifty miles. The chain of the Allegheny can be merely considered as a mound or rampart, whose height, at a medium, is two thousand or two thousand five hundred feet; differing in this respect, widely from the other great ridges of the globe.\* The Alps have been estimated at ten thousand feet,

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\* "The height of this mountain in Pennsylvania, above the plain below, is, according to Dr. Rush, about 1300 feet. Travellers indeed remark, that they reach the summit by gradual and almost imperceptible ascents." See his *Views*, page 27. Here I beg leave to observe, that in Pennsylvania it should be considered only as a ridge, dividing the eastern from the western world.

the Pyrenees at seven thousand five hundred, the Andes at fifteen thousand, and Libanus at nine thousand five hundred. Hence it may be easily perceived, how much influence this mountain must possess over the atmosphere of the United States, and of the whole continent of North America.”\*

He also observes that, “Between the climates of the inland and maritime districts there are two points of diversity, of great importance, though hitherto unnoticed. The first is that southward, beyond the latitude of  $35^{\circ}$  and  $36^{\circ}$ , the temperature of both regions becomes the same. The Floridas, and western Georgia, from the Mississippi to the Savannah rivers, enjoy the same climate and seasons. Hence it clearly appears, that the previous difference was owing chiefly to the mountains, this diversity keeping pace with them, and ending only where they end.

“Secondly, the superior warmth of the western quarters ceases to take place when you reach the great lakes, and in the latitude of  $43^{\circ}$  and  $45^{\circ}$  north. On leaving the southern shore of Lake Erie, the cold incessantly and prodigiously increases. At Detroit and Niagara the same climate

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\* See his Views from page 25 to 28,

prevails, but from Lake St. Clair the cold is much more severe, and permanent than at Detroit. That lake is frozen over every year from November to February. South and south-west winds, which moderate the weather at Lake Erie, occur less frequently here, and no fruits but winter pears and apples reach maturity.”\*

If we consider the prodigious extent of surface, and great difference in latitude, connected with Mr. Volney’s remarks on the winds, and the local causes acted on by them, it is scarcely to be expected that the system he has formed should be complete in all its parts. Still, as it has been often clearly demonstrated, that even very trivial local causes, when acted on by the winds, have made great and highly interesting alterations in temperature,† what he has written on those subjects claim our serious attention, notwithstanding what land jobbers and others interested in the western country, have said to the contrary.

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\* See his Views, pages 127 and 128.

† See my book on Agriculture.]

## CHAP. IV.

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Mr. Birkbeck says in a letter to his son, "A capital of L. 2000 (8889 dollars) may be invested on a section of such land,\* in the following manner: viz.

Purchase of the land, 640 acres, at \$2 per acre	\$ 1,280
House and buildings exceedingly convenient and comfortable, may be built for	1,500
A rail fence round the woods, 1,000 rods at 25 cents per rod	250
About 1,800 rods of ditch and bank fence to divide the arable into 10 fields, at 33 $\frac{1}{3}$ cents	600
Planting 1800 rods of live fence	150
Fruit trees for orchard, &c.	100
Amount carried up	\$ 3,880

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\* He purposes having 240 acres in wood adjoining to 400 of prairie. See his Letters, page 49.

Amount brought up	-	-	-	\$ 3,880
Horses and other live stock,	-	-	-	1500
Implements of furniture	-	-	-	1000
Provision for one year, and sundry incidental charges,	-	-	-	1000
Sundry articles of linen, books, apparel, implements, &c. brought from England,				1000
Carriage of ditto, suppose 2000 lbs at \$ 10 per cwt.	-	-	-	200
Voyage and travelling expenses of one person, suppose	-	-	-	309
				<hr/>
				\$8,889

NOTE.—The first instalment on the land is \$ 320, therefore \$ 960 of the purchase money remain in hand, to be applied to the expenses of cultivation, in addition to the sum above stated.

*Expenditure of the First Year.*

Breaking up 100 acres, \$ 2 per acre	\$ 200
Indian corn for seed, 5 barrels, (a barrel is 5 bushels)	10
Planting ditto	25
Horse-hoeing ditto, \$ 1 per acre	100
Harvesting ditto, \$ 1½ per acre	150
	<hr/>
Amount carried up	\$ 485



Amount brought up	-	-	-	\$ 485
Ploughing the same land for wheat, \$ 1				
per acre	-	-	-	100
Seed wheat, sowing and harrowing				175
Incidental expenses	-	-	-	240
				<hr/>
				\$ 1000

*Produce of the First Year.*

100 acres Indian corn, 50 bushels, or 10				
barrels per acre, at \$2 per barrel				2000
				<hr/>
Net produce	-	-	-	1000
				<hr/>

*Expenditure of Second Year.*

Breaking up 100 acres for Indian corn,				
with expenses of that crop	-	-	-	\$ 485
Harvesting and threshing wheat, 100 acres				350
Ploughing 100 acres for wheat, seed, &c.				275
Incidents	-	-	-	290
				<hr/>
				\$ 1,400

*Produce of Second Year.*

100 acres Indian corn, 10 barrels				
per acre, at \$ 2 per barrel	\$2000			
100 acres wheat, 20 bushels				
per acre, \$75 per 100 bush.	1500			\$ 3,500
				<hr/>
Net produce				2,100

*Expenditure of Third Year.*

Breaking up 100 acres as before, with ex-	
penses on crop of Indian corn - - -	485
Ploughing 100 acres wheat stubble for	
Indian corn - - - - -	100
Horse-hoeing, harvesting, &c. ditto	285
Harvesting and threshing 100 acres wheat	350
Dung-carting 100 acres for wheat after se-	
cond crop Indian corn - - - - -	*200
Ploughing 200 acres, wheat seed, &c.	550
Incidents - - - - -	330
	<hr/>
	2,200
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*Produce of Third Year.*

200 acres of Indian corn, 10	
barrels per acre, \$ 2 pr. bl. \$ 4,000	
100 acres wheat, 20 bushels per	
acre, \$ 75 per hundred bushels 1,500	
	<hr/>
	5,500
	<hr/>
Net produce	3,200
	<hr/>

\* This would not pay for hauling the dung, even if the farm buildings were placed in the centre of the farm. After hauled, it is to be spread; but the first and great expenses are, providing a sufficiency of litter, attendance on cattle, cleaning out stables, &c. &c

In fact, correct accounts would soon convince Mr. B. that dunging 100 acres for wheat, will cost him more than four times as much as he estimates.

*Expenditure of Fourth Year.*

As the third	-	-	-	-	\$ 2,300
Harvesting and threshing 100 acres more					
of wheat	-	-	-	-	350
Additional incidents	-	-	-	-	50
					<hr/>
					\$ 2,700

*Produce of Fourth Year.*

200 acres of Indian corn as above	\$ 4,000	
200 acres wheat	-	3,000
		<hr/>
		7,000
		<hr/>
Net produce	-	4,300

*Summary.*

	EXPENSES.		PRODUCE.
First year	1,000	-	2,000
Second	1,400	-	3,500
Third	2,300	-	5,500
Fourth	2,700	-	7,000
			<hr/>
			18,000
Housekeeping and other expenses four years	\$ 4,000		
	<hr/>		
	11,400		11,400
			<hr/>
			6,600

Net proceeds per annum	-	-	\$ 1650
Increasing value of land by cultivation and settlements, half a dollar per acre per annum on 640 acres	-	-	320
			<hr/>
Annual clear profit	-	-	\$ 1,970
			<hr/>

Housekeeping and other expenses being paid, there remains a profit of 22 per cent on the capital, and you are improving your own estate."

The money appropriated for erecting the farm buildings and dwelling house, may be sufficient, if they are formed with logs in the most economical way, and by far the greater part of the grain and hay be put into stack.

The ditch and bank fence will cost him nearly three times the sum he estimates it at. The rail fence is also rated a good deal too low. Who ever heard before of growing and planting the quicks on 1800 rood for \$150? No estimate is made of the expense of weeding, and keeping the plants clean after they have been planted, nor of the dead fence Mr. Hulme says he was erecting, to defend the banks, until the live one would effect this purpose. This fence was simple enough, still cutting, hauling, preparing, and putting up the timber, cost money, as will also trimming, training and weeding the plants.

But here, I would ask Mr. Birkbeck, why he enumerates implements and furniture together, or why the cost of furniture, linen, books, and apparel are enumerated as part of a farmer's agricultural stock? In no regular business are such articles estimated as belonging to it; neither are, nor should the expenses of the family be rated in this way. The reason is obvious, the expenditure of a farmer's family, depends principally on the habits of it. Some expend five or even ten times as much as others; consequently, nothing can be certainly known of the clear profits of a farm, unless the family expenses be kept separate from it.\* The expense, however, of the voyage from England, and travelling expenses; together with provisions for the family, until cultivation commences, may be justly charged to the farm as a part of the cost of it.

This gentleman seems to allow no capital for cultivating the soil, except 960 dollars of the purchase money remaining in hand. This will be growing less annually, as the payments become due for the land. If it were a permanent fund, however, it would not be near enough, as the expenses of growing only one hundred acres of corn,

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\* For a full explanation of this, see my book on Agriculture.

and as many of wheat annually, will be, if the following estimates are correct, near \$3500; and in place of growing one hundred, it appears, from his estimates, that he intends to grow two hundred acres annually in corn, after the first two years, and on the fourth year, he calculates on growing two hundred acres of corn, and as many in wheat.\*

In fact, his statements are incorrect throughout; an inconsiderate jumble of ideas, calculated to

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\* This will require a capital of nearly 7000 dollars for cultivation alone. As the whole of the cleared land is to be occupied by cultivated crops, there can be no hay made; and still more strange to tell, (especially in the practice of an enlightened cultivator,) no pasture, even for his working cattle, until after wheat harvest. His other cattle may gather sufficient food during summer, and a part of the spring and fall outside of his enclosures. He cannot keep more of them, however, than may be supported through the winter on the corn fodder, left after summer, feeding his working cattle with it till after harvest; unless straw be also used for this purpose. The latter, however, winters cattle so badly, that it is by far more economical to use it for litter, and provide more nutritive food for them. It will cost \$2 50 per acre, for gathering the corn fodder in the cheapest way it can be done. Consequently, an additional capital of \$500, will be necessary for this purpose alone. After it has been gathered, it will cost money, or require more capital, to feed the cattle with it; also, to water and take care of them. In fact, there are such a multitude of things to be done on a farm that require capital, especially under the management of a gentleman, (who neither labours himself, nor obtains any menial assistance from his family,) that it would be too tedious to enumerate them.

deceive, and grievously disappoint, all who place any reliance on them. But to meet him as nearly as possible on his own ground, it is thought best, to reason, as if it were admitted, so far as interest or capital be concerned, that £2000 sterling, or \$ 8889, will pay for and improve the farm; also, stock and cultivate it. Never was there, however, a well informed man, more egregiously mistaken than is Mr. Birkbeck, respecting the capital necessary to a good system of agricultural management in this country. He ought to have seen that a sufficiency of capital is quite as necessary here, as it is in England.

After first erecting the buildings, and making every improvement, necessary to prepare the four hundred acres of prairie for farming, it will require, at least, \$10,000 to stock and cultivate the ground, as it ought to be done. This is 25 dollars per acre. It cost me more than 30 dollars per acre, in the vicinity of Philadelphia, to stock and cultivate the clear grounds occupied by me, notwithstanding the dung used on the farm was made on it. The cattle, as well as the horses, however, were all soiled, or fed through the summer, as well as in the winter, either in stables or under sheds in the yard. This of consequence rendered some increase of capital necessary. It

requires a great deal of money to stock and cultivate four hundred acres of cleared land, more especially, if (as Mr. Birkbeck seems to consider important where he resides) the sale of the produce be not forced when the market is low.\*

In Virginia, or Maryland; where slaves are numerous, one, or even two hundred acres of corn might be readily cultivated. But to cultivate one hundred acres as it ought to be done, even in Pennsylvania, where labourers are vastly more plenty than in Illinois, would be found an herculean (if not an impracticable) task, even in the practice of the farmer, who, with a numerous family of children, labours daily on the farm. Twenty acres are justly considered a large crop of corn in Pennsylvania; and where there is one farmer who grows as many, there are twenty who do not cultivate near that number.

If Mr. Birkbeck knew the labour and expense of a well cultivated crop of corn, even when dung is not employed, he would have seen it impracticable to grow any thing like the number of acres mentioned by him. He would also have seen, that it would cost quite as much, to grow and secure an acre of maize, as an acre of potatoes.

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\* In every country the capital ought to be sufficient to guard against being compelled to sell the produce of the soil when in all probability it must be sacrificed.



In the Farmers' Magazine, published in Edinburgh, 1816, the expense of growing a statute acre of potatoes, is estimated at *L*.5, after deducting the charge made for rent and seed. Dung was employed, but no charge made for it.\* Now, if *L*.5 sterling per statute acre be charged for cultivating Mr. Birkbeck's crop of corn, it will cost him more than he says it will sell for, provided the quantity be as he has rated it, to wit, fifty bushels of shelled corn to the acre.†

This gentleman says, "a man and two horses may be hired to plough at \$ 1 per day." It is possible that this might be done for a day or two, if the man and the horses be found by the employer. It is evident, however, that where population is so thinly scattered, that there are but "twelve human habitations in two hundred square miles,"‡ and these occupied, principally, by hunters, no assistance worthy of notice can be obtained from them: especially in an extensive agricultural establishment. Of consequence Mr. B. must find horses, ploughs, &c. keep a regular set of plough-

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\* I expect Mr. B. will admit, that if no charge be made for rent or taxes, an acre of potatoes may be grown and secured in Britain, as low at least as the same can be done in Illinois.

† See my book on Agriculture, where the expense of growing a crop of corn, has been particularly compared with that of a potatoe crop.

‡ See his Letters, page 37.

men and labourers. American labourers will have (even if they board themselves) tea, coffee, sugar, &c. and these come high in Illinois.\* They, therefore, expect high wages, notwithstanding grain and meat are low. Horse feed will be lower, but as leather, iron, steel, &c. are higher than in the Atlantic states, harness, and implements of husbandry, will be much more expensive at his prairie, than they are here. It is of course evident, that the labour of a man and a pair of horses cannot cost Mr. B. less than \$ 1 50 per day. The roots of the grasses, and large weeds which generally prevail in a prairie are strong; and will make four horses in a plough necessary to break up the sod. They, if well managed, will plough an acre per day, but require one man to drive, and another to manage the plough. Of consequence, Mr. B. should have allowed 300 dollars in place of 200, for turning

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\* In so new a country, they must depend principally on importation for their clothing, the length of carriage from our seaports will, of consequence, greatly increase the price. Facts, however, prove that labour is quite as high in Illinois as in the Atlantic states. Mr. B. in a letter to a man he had never seen, offers \$ 230 per year. This is about 73½ cents per day, wet as well as dry, rating twenty-four working days to the month. I hired much by the day, while I lived in the vicinity of Philadelphia, the steady prices was 75 cents per day, the labourer finding himself, and nothing paid for time lost, either by wet weather, or otherwise. See his letters, page 58.

the sod of one hundred acres for corn. It is also observable, that he charges nothing for harrowing and furrowing out the reversed sod, previously to planting. He allows only \$25 for planting the one hundred acres. This will cost him, at least, four times as much. To avoid replanting, he ought to employ half as much more seed as he has charged, and also make a charge for the daily employment of one very active man at least, together with the powder and shot used by him, in killing birds and small quadrupeds, which, if the field be not well guarded, will pull, and scratch up the corn plants, (after they appear above the ground,) while a vestige of the seed remains at the root. A charge should also have been made for thinning the plants to a proper number in the clusters or rows after danger is no longer apprehended from the birds and quadrupeds that scratch and pull them up. He writes to his son, that, "It is customary to plant Indian corn on the first ploughing, on newly broken up prairies, and the crop is left to struggle with the grass which springs up abundantly between the furrows; our method of skim ploughing, I expect, will be found of great advantage, not only as it regards this first crop, but to the wheat that follows; should it

prove that I am mistaken, the produce of the first crop is set too high."\*

Where this gentleman could have seen or heard that corn, after planting it, on a reversed sod, was left to struggle with the grasses and weeds, is unknown to me. It would be, however, a ruinous practice in a grass lay of any sort. Has not Mr. B. misapplied the practice, which is sometimes employed by new comers hard pressed for time, in lands recently cleared from their wood? As in these grounds, neither grasses nor weeds prevail so abundantly as in lands which have been longer cleared: especially, if a fire has been made to pass but very slightly over the soil, previously to planting or sowing.

There are but few farmers in Ohio, who do not cultivate their corn, after it has been planted, twice, and some of them three times. In fact, there are farmers in that country, who cultivate maize as well as it is generally done elsewhere. Witness what this gentleman says of "the garden-like appearance exhibited in the prairie at Pickettown, of the finest Indian corn neatly cultivated."†

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\* See his Letters, page 48.    † See his Notes, page 34.

The whole charge made for cultivating his intended crop of corn, after planting it, is only \$ 1 per acre for horse hoeing it. Not a word is said of the hand hoe, notwithstanding, there is no crop grown by us, that requires the liberal use of this instrument more than corn. For the necessary use of the horse and hand hoe, and for succouring the growing plants, he should have charged at least \$ 400, in place of \$ 100.

It requires a great deal of very active attention to preserve a field of corn, (but more especially in a new settlement,) from birds and small quadrupeds by day, and rackoons, ground-hogs, bears, &c. night, from the time the grain begins to harden, until it is husked and put into the crib. Yet no estimate is made of the labour and ammunition necessary to effect this valuable end. If the field be not carefully guarded, he will find, however, the tax gathered by those children of liberty and equality, fully equal to the tythe or tenth, of which he and many others of the mammoth farmers in England, have of late so loudly complained; notwithstanding the small farmers, as they are now called, paid it for a long time without any apparent injury to their agricultural concerns, although it was, and ever will be a very unpopular tax.

But to return to the corn crop. It will cost Mr. Birkbeck six cents per bushel for husking, hauling in, and-cribbing his corn. Consequently, three hundred dollars in place of one hundred and fifty, should have been charged for harvesting the crop. He seems to have forgotten that the corn must be threshed from the cob, and cleaned with the fan before it is sold. This with moving it from the crib to the threshing floor or cradle will cost him about two and a half cents per bushel, or \$ 125 for the crop.\*

When the prairie can be prepared for the plough, by setting fire to the dried grass and weeds in the spring, without danger to the buildings or fences, the expense is not considerable. But when a mixture of hardy woody plants, or any other cause, renders it necessary to mow off dry, and burn the vegetation, the expense of preparing the grounds for the plough is considerable.

One fourth part of the interest on \$ 8889, the capital employed, to wit, \$ 133 50 cents; together with a proper proportion of the taxes

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\* Query, if it be sold to a merchant or miller, will he not also have to haul it, at his own expense, six miles to the banks of the Wabash, the nearest route to water carriage? He certainly will, or I am greatly mistaken.

should be also charged to the corn crop; as from the woodlands no revenue is to be expected. The taxes, when compared with those paid in England, will be small; still they will be vastly higher on a section of land, where considerable improvements have been made, than on the same number of acres of unseated grounds.

Mr. B.'s theoretical estimate of the expense of a wheat crop, does not seem to agree with actual practice. In the fall of 1809, I put eight and a half acres in wheat, after a mixed crop of corn and potatoes. The ground was ploughed twice, rolled and harrowed as often for the wheat. This labour far exceeded what ought to have been employed. As Mr. B. however, has estimated one ploughing for his wheat, and could not put it in without harrowing, I will deduct one ploughing, rolling and harrowing from the expense of my crop, and will also account for the difference in the cost of seed.

This gentleman estimates his expected crop of wheat, at twenty bushels to the acre; mine averaged twenty-nine bushels to the same quantity of land. I will, therefore, deduct from the expense per acre of my crop, the sum paid for cutting, inning, and threshing nine bushels.

Expenses of cultivating, harvesting, and  
threshing my  $8\frac{1}{2}$  acres; seed not in-  
cluded - - - - - \$ 145 44

Produce  $247\frac{1}{2}$  bushels, or as near as may be  
29 bushels to the acre.

The expense of cultivating, harvesting, and  
threshing one acre, is therefore without  
including seed - - - - - \$ 17 11

Deduct for one extra ploughing, rolling,  
and harrowing - - - - - \$ 2 0

Also, for harvesting and threshing  
9 bushels, at  $37\frac{1}{2}$  cents - - - 3 37—5 37

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11 74

Add for seed, 2 bushels per acre, at 75 cts. 1 50

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13 24

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Agreeably to this estimate founded on  
facts, 100 acres of wheat, without charg-  
ing rent for the soil or taxes, will cost  
Mr. Birkbeck - - - - - \$ 1324

As no revenue can be obtained from the  
wood lands, the interest on one quarter  
of the \$ 8889, the stock employed,  
ought also to be charged to the wheat  
crop, to wit - - - - - 133 33.

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This makes the whole expense (without  
taxes) to cost Mr. B. - - - - - 1457 33



Now this gentleman does not calculate on selling the crop of wheat for more than \$ 1500 ; how then is he to maintain his family ? certainly not by farming.

Mr. Flower, the son of the elder gentleman of that name, was, previously to his fixing on the Illinois, in this town and neighbourhood several days, exploring the country. He seemed to be a very temperate, active, well informed gentleman, and made many inquiries, respecting what a farmer might do profitably in the back woods. It was not long however before I observed, that he expected to farm much more extensively than was practicable, especially for a gentleman, who had not been accustomed to labour. I endeavoured to convince him of the ruinous consequences which would certainly result from this plan, more especially if he should vest all his funds in lands and improvements for farming ; as in this case, he would most assuredly find, (when too late,) that he could not maintain himself and his family by agriculture, in a way that would be barely comfortable to them. This opinion was founded on observations made in the back parts of Pennsylvania, where the prices for the produce were very good. I advised him to place as much of his money in the funds, or where it would secure an interest

equal to the maintenance of his family ; to buy land with the remainder ; to cultivate no more of this, than could be readily effected by the labour he might obtain on reasonable terms in the neighbourhood ; to extend this cultivation no further than prudence and profit clearly dictated ; and in proportion as he found his income from farming increasing, to withdraw the money put out on interest, and vest it also in lands, until an increased cultivation, or rents, or both, would enable him to withdraw, and apply the whole in the same way.

Some remarks on the above mentioned eight and a half acres of wheat, will serve to illustrate the very superior advantages, which may be derived from settling in a country, where good markets prevail, and also how very speedily hill and dale grounds may be enriched, after they have been very much exhausted. This land came into my possession, in the summer of 1806. It was then in oats. After they were removed, it was seen that corn had been grown on it the preceding year, by the remnants of very small stalks, which still remained on the ground. In order to bring it into a state of improvement, it was sown the ensuing fall in wheat. On this clover-seed was scattered the ensuing spring, and gypsum sown on the young clover plants. The wheat crop proved

as was expected very light, perhaps not more than six or seven bushels to the acre. A good stubble crop of clover, however, was mown in the fall; the hay was better in consequence of the stubble standing very thin on the ground. The field was sown again with gypsum in the spring of 1807, and two good crops of clover mown from it in that year. In the spring of 1808, fresh unfermented dung was spread over the greater part of the clover lay. As the dung did not hold out, the remainder of the land was manured, with soil from the woods.\* A mixed crop of corn and potatoes was planted; the latter under the furrow, and the former on the reversed sod; the practice was novel, of consequence not well understood, and as commonly happens in cases of this kind badly managed. This caused the average produce to fall far short of what has been since obtained, from a mixed crop of the same description. The product was only forty-three bushels of shelled corn, and eighty-four bushels of potatoes to the same acre. The produce of the wheat has been mentioned before. It was however in general much better, on that part of the ground which had

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\* An inconsiderate practice, and very injurious to the wood lands.

been well dunged for the mixed crop. So much so, that it was thought the crop would have averaged thirty-five bushels to the acre, if the whole of the land had been well manured with dung for the mixed crop.

The neat clear profit, however, of this little patch of wheat, after deducting every expense arising on it, was £ 403 43, and if rent for the ground, and interest on the capital employed on the crop had not been charged, the neat clear profit would have appeared to be £ 487 35.\*

How easily then may the farmer who possesses a sufficient capital, enrich any hill and dale soil, that has been much exhausted, and which, in a state of nature, never had been more than barely moderately rich, while it is at the time yielding him annually, very profitable crops of grain and grass, provided too many obstacles to the plough do not obtain. The remaining wood lands clearly determined, that the soil formerly occupied by me, north of the city of Philadelphia, on which those eight and a half acres of wheat were grown, never had been more than moderately rich. The

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\* Ground rent however and interest on the capital employed on the crop, ought always to be charged, notwithstanding there are but few who do it, so as to determine accurately, the profit or loss on every crop grown by them.

grounds, however, were generally so free from stones, and other obstacles, that in common the sod could be well turned ; always an object of high consideration, but more especially, when the grounds are to be speedily enriched, with the least possible labour and expense.

Mr. Birkbeck says in a letter to his son, " If I am too sanguine in this particular, (to wit, in rating the produce of his corn crop,)\* by way of compensation you will observe, that I have entirely omitted the profits on live stock ; and it is on the boundless scope for rearing and fattening hogs, and cattle, that the farmers place their chief reliance. Vast quantities of pork and beef are shipped for New Orleans, from Kentucky, and Indiana. In this shape, that is, when applied to fattening cattle, and hogs, we may ensure \$ 2 per barrel for Indian corn." From this it would appear, that screwing up the price of corn to \$ 2 per barrel, depended on a very risking speculation. This gentleman is an experienced farmer, therefore ought to have known, that fattening cattle, &c. on any other food than grass, is so precarious, that he who fattens them, either on

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\* At fifty bushels per acre.

grain or roots, often loses considerably, and in some instances sinks the whole value of the food given to them. But why feed away the corn to cattle and hogs, if what Mr. Birkbeck says be correct, to wit, that "cattle and hogs thrive well and even fatten, especially the latter, to a great size, on the food they find?" Would it not then be far more economical to sell the corn at any price it would bring, than employ it to promote an end, which may be effected without either labour or expense, except that of hardening the flesh of so much of the pork as may be employed in bacon, for family use? The real fact however is, that unless mast happen to be very plentiful, the pork fattened on it, is not only soft, flabby, and oily, so as to run away and shrink greatly in the pot, but likewise so thin, that it proves a very unprofitable concern to the seller, as well as the buyer of it.

This is seen by the large quantity of bacon which passes annually through this place, on its way to the numerous iron manufactories, established in this, and the adjacent counties. It is brought from the westward of us, where there is an extensive range for hogs, affording much mast, consisting of chesnuts, beach-nuts, acorns, &c. When this supply fails, however, or is not very plentiful,

(as frequently happens,) the meat is thin and comparatively of little value; the animal has to encounter too much exercise in procuring his food to fatten freely.

Still Mr. Birkbeck, who writes without due consideration or knowledge of this country, says, "In the case of live stock, the out-goings are so small, that the receipts are nearly all clear gain."\* In a country of which this gentleman himself writes on the 15th of February, "the grounds are covered with snow, and ice, with the thermometer about zero," winter food must be provided for cattle, &c. The mowing, making, and in-ning each ton of hay, may cost more, but cannot cost less, (if seasons for making may be averaged,) than \$ 2 50. To this should be added the rent, and taxes of the land on which it grew; also an annual interest on the value of the animal, and a per centage for the risk of its life, as well as every other expense arising on it, until it is three or four years old, or old enough to kill.† If this be done, the carcass of the animal will not sell for more than the amount where markets are so low.

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\* See his Letters, page 20.

† No rational objection can be made to any of these charges, as the gentleman's money secured by mortgage, will bring interest, without risk or drawback.

In this case, as well as almost every other connected with agriculture, the plain practical farmer has a prodigious advantage over the gentleman, as he and his family perform by far the most, and very often all the labour done on the farm. But why should he lose more than one half of the profits of his industry, and that of his family by settling in a country where the produce of the soil will not bring more than one half as much as it sells for in the Atlantic states ?

But here I would ask, how are hogs to subsist, unless grain be given to them, (as is the practice in the back parts of Pennsylvania,) when the earth in Illinois is covered with snow, and hard bound in ice and frost ? They must subsist on very scanty fare, when neither mast nor roots can be had ; and notwithstanding the very variable temperature of that climate may often uncover and open the earth, it would seem, that the animals will generally be found poor enough in the spring, and when the seasons happen to be very severe, the most if not the whole of them may perish with hunger.

The farmers in Ohio seemed once to think, as does Mr. Birkbeck, to wit, that, "there is no bounds to the number that may be raised, but in



the ability of the breeder. They require but little care except to protect them from bears and wolves; keeping them tame by giving them salt frequently."\* These cultivators however discovered that this business might be readily overdone. Immense numbers of hogs have perished there, in consequence of the failures in mast. Goaded with hunger, those wretched animals prolonged their existence for some time, by eating off the bark from the trees as far up as they could reach, and much timber was killed by them. The farmers there are now more careful to maintain, (as the farmers in Pennsylvania, Maryland, and Virginia have long since done,) a more rational proportion between the number of their hogs, and the size of their corn cribs; the hogs are now fed there through the winter, much in the same way as in Pennsylvania. That is, in proportion as mast or other food provided by nature is scarce or plenty, or the surface and interior of the soil happen to be closed, or open to them.

That nature, unassisted by art, is incapable of supporting the larger animals, to any considerable extent, is evinced by the scanty population and

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\* See his Notes, page 177.

tardy increase of uncivilized man. When seasons favour the natural productions on which he *principally* lives, he revels in abundance. When they are unfavourable, however, he suffers, and sometimes to a prodigious extent, even to perishing with hunger. The inferior animals, when entirely dependent on nature for their support, suffer still more frequently, as they have much less sagacity, and but few of them have been taught to lay up stores for the winter.

## CHAP. V.

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Mr. Birkbeck, before he landed in this country, and while he was yet "five hundred miles east of Cape Henry," says, "Slavery, that broadest foulest blot, which still prevails over so large a portion of the United States, will circumscribe my choice. This curse has taken hold of Kentucky, Tennessee, and all the new states to the south. If I can forego the well earned comforts of an English home, it must not be to degrade myself, and to corrupt my children, by the practice of slave-keeping. Therefore my inquiries will be confined to the western parts of Pennsylvania, and the states of Ohio, and Indiana, and Illinois. Thus, in the immense field before us, the object of our search will be found, if found at all, within a comparatively narrow space. To this main object, I shall apply myself immediately, and deferring to a future day, the gratification of travelling through the Atlantic states. I intend, on my arrival, to repair westward, with all

convenient speed, in order to take a deliberate survey of those western regions, with a hope of fixing on the place of our final settlement, before the ensuing winter.”\*

It seems unfortunate for Mr. Birkbeck, that he had predetermined before he landed, to repair westwardly with all convenient speed, and defer to a future day, the gratification of travelling through the Atlantic states. If in place of proceeding immediately to the western country, he had made himself acquainted with what might be done, by the proper management of any dry and but moderately rich hill and dale soil, in the Atlantic states, previously to its being exhausted, he would have seen, that much more depended on the farmer, than on soil cultivated by him. Also, that hill and dale soils may be readily so managed, as to produce as large, or indeed larger crops of corn, wheat, and other grain, than can be obtained under the best system of management, from the richest bottom lands that are to be found.

He would, or at least might, have also seen in the older settlements, where the grounds had been long enough cropped, to discover the full extent of the injury done by a ruinous system of agricul-

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\* See his Notes, pages 5 and 6.

tural management, that a bad farmer as effectually exhausts the very deep and rich bottom soil, as he does the hill and dale grounds. The only difference is, that it requires a longer time to effect the destruction of the former, as the deposition of ages had laid up much more food for plants in it.

This of course makes the bottom grounds, for a certain time, much more valuable to the bad farmer, who ploughs and crops perpetually, with but little attention to grass, and less to dung or other enriching manure. The very rich bottom, however, like wealth put into the hands of a spendthrift, will eventually prove injurious to him, in proportion to the means furnished by it, to encourage and prolong bad habits.

A British farmer in common knows little, and but too often nothing at all, of the wonder-working powers of gypsum, in this highly favoured country, nor of the incredible rapidity with which worn out dry\* hill and dale soils may be greatly enriched, by the judicious use of it, and of the dung that may be readily obtained from the proper use of the increased vegetation excited by it.

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\* Wet grounds are as readily enriched by the proper use of this substance, provided they have been drained previously to the use of it.

Now it is evident that nothing could have been more important to Mr. Birkbeck, than an intimate and correct knowledge of this highly interesting fact. For it follows, as a natural consequence, that if the thin soil of an undulating country can, by proper management, be quickly restored, after having been previously exhausted, that the fertility of the land, which has never been subjected to cropping, can be augmented to such extent as to rival in produce that of the richest bottoms—nay, perhaps the average crops may be even greater. And at the time that the farmer is ameliorating the condition of his ground, he is obtaining crops, equal at least to those Mr. Birkbeck expects from his prairie.

In Virginia, vastly more extensive and important improvements have been made by the agricultural use of gypsum, than in any other state. By far too many of the cultivators there, however, depend too much on the application of the vegetation excited by it as manure, in place of keeping large stocks of cattle, and by this means have it highly animalized by passing through them, or employing it as litter. Much more animal matter is required to grow and perfect very large crops of grain, than is furnished by the animalcula fed and sheltered by the tops and roots

of the vegetation, turned under the soil for manure. Hence it is, that no new ground under the sun, will produce as large crops of grain, as lands which have been dunged, or otherwise manured, by a due proportion of animal matter.

Those who use the vegetation alone have, in many instances, trebled their crops, and considerably enriched the soil; of consequence have done "passing well;" those, however, who have converted those substances into dung have done far better; for they have in many instances realized double the produce, that has been obtained by those who employed the vegetation only, and much more highly enriched the soil. These interesting facts have been fully established in the practice of Col. Taylor, as described in his *Arator*; still this gentleman seems to dispute the importance of animal manure.\*

Mr. Birkbeck tells us, that he "visited Mr. W.'s farm, about twelve miles up the river, above Richmond. On it are three hundred acres of wheat, as clean and good as I ever saw on one farm in any country; and a large breadth of good clover. Indian corn to a great extent, ~~very~~ effectually cul-

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\* See my book on Agriculture, for observations on Col. Taylor's theories and practice.

tivated with the horse and hand hoe ;\* and on the whole, with the exception of live stock, which was neglected, I saw as good husbandry as would be expected in some well managed districts of Great Britain.”†

Mr. Birkbeck seems to have discovered in the practice of Mr. W.’s, the too general deficiency in the improved husbandry of Virginia. How easy then would it have been for him to introduce in his practice, a sufficiency of live stock ? Becoming an inhabitant of Virginia, would not have compelled him to be a slave holder. He might have bought cheap in the interior and healthy parts of that state, an extensive farm with the necessary buildings already erected, notwithstanding the land would have been considerably exhausted, if he bought it at a very low rate, it might have been as speedily and as profitably enriched, as were the eight acres and a half mentioned above. It would appear, that in no country under the sun, is land so rapidly, and at the same time advantageously enriched, as in America ; that is by those cultivators who reason and act judiciously.

If instead of passing post haste through that

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\* This ought to have taught Mr. Birkbeck to charge for hand-hoeing his crops.

† See his Notes, page 27.



state, he had visited the enlightened cultivators, who have been engaged in making the highly important improvements noticed above, he might have obtained invaluable information. He would have found those gentleman polite, well-informed, and as hospitable, as fame has represented them to be. Added to this, many of them are not only learned, but also possess a very extensive knowledge of the world.

This gentleman attempts, however, very prematurely to delineate the character of a Virginian, from what he saw or heard at a horse-race,\* and picked up as he journeyed hastily through the country. As well might an American presume to describe the character of the English, by what he gathered in the same way, or by what he saw and heard at one of the numerous popular and disorderly meetings in England, where the people are but too often excited to tumult and acts of atrocity, which would disgrace barbarians.

He says, "a Virginia planter is a republican in politics, and exhibits the high spirited independence of that character. But he is a slave master, irascible, and too often lax in his morals. A *dirk*

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\* See his Notes, pages 15 and 16.

is said to be a common appendage to the dress of a planter in this part of Virginia."\*

Now here I would ask, is the great body of farmers in Virginia more irascible, or lax in their morals, than the same class of men in Britain? and in what way has this been evinced? certainly not by a comparison instituted between those citizens of England who visit this country and the Virginians. Religion, that is, real piety, seems to be the only certain promoter and safeguard of morality. Is there less genuine heartfelt religion, or in other words, the love of God and man among the Virginians? Are they more in the habit of ridiculing religious institutions generally, than our transatlantic friends? Certainly not.

Vital piety has certainly made a considerable spread among the citizens of Virginia. It is this that has caused the condition of the slaves there to be so greatly ameliorated; and that will eventually effect the emancipation of the whole of them; and it seems probable that Col. Taylor's highly interesting system of husbandry, (if generally practised and improved,) will greatly hasten

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\* See his Notes, page 16.

the time, when they may be liberated with safety to the persons and property of the whites.

If we may judge of Englishmen, however, by the sample we have among us, they are in common quite as much opposed to the truths of the gospel, as are the natives. Of consequence they are in general full as "lax in their morals." For the man who does not admit the truth of revelation, has to form his own religion, and this (if we may determine by the practices of these men) is but too frequently done, to favour their corrupt passions or selfish interests.

I have to quote the writings of but four Englishmen in the course of my present work ; three out of the four appear to be immediately opposed to religion. Two of them, however, seem to wish to hide the deformity of their opinions, by giving the quakers some praise. But if they really approved of the religion professed and propagated by this very respectable society, they would revere the spirit and temper of the meek and lowly Saviour of the *world*, in every society of Christians where it appeared.

Mr. Birkbeck flatters himself, that he has found on the frontiers, a people as regardless of the forms and power of religion, as he boldly professes

himself to be. He will find, however, that "God has not left himself without a witness in the heart of every man," and that if the same happens in his neighbourhood, as appears to have happened every where else, in the back woods, provided the principles of these men have not been perverted by rash and vain philosophy, (as have been those of too many in polished society,) that notwithstanding they are now scattered as sheep without a shepherd, they will, so soon as opportunity offers, arrange themselves under the banners of the different religious societies to which they belong, or else join such other denominations of Christians, as may happen to be hereafter established in their neighbourhood.

Not long after my arrival here I was informed, that religion had made some progress soon after the settlement was formed; but that there had been a considerable falling off. Since when drunkenness, with other gross immoralities, has but too commonly prevailed. In this state things seemed to continue until about eighteen months ago, when a considerable revival of religion took place. This has been increasing under the care of a few simple hearted unlearned men; and notwithstanding there is a forge for making bar-iron within half

a mile of the town, and the people employed in and about forges, are in common very wicked and abandoned, yet here sobriety, morality, and much attention to religion generally prevail; and a house of worship free to all societies of Christians, is now building about half way between the settlement at the forge, and the town.\*

But to return to Petersburg, where Mr. Birkbeck says, "A dirk is a common appendage to the dress of a planter in this part of Virginia." My brother lived many years in that town. I have heard him speak of the manners of the people in and round about it; but never heard him say any thing of a dirk. On the contrary, he spoke of them as a kind and hospitable people. I must therefore conclude, that this charge introduced on no better evidence than "it is said," is cruel and unjust. In every nation there are inconsiderate, as well as profligate people, who carry such secret and disgraceful weapons, but certainly these cha-

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\* As Mr. Birkbeck has introduced religion in the book I am controverting, for the express purpose of ridiculing it, I flatter myself that I shall not be censured, for endeavouring to show, that the charity or love inculcated by the gospel, and beautifully described by St. Paul, is well calculated to secure the present and future happiness of man, and also to promote the peace, good order, and happiness of neighbourhoods, &c. &c.

racters are not more conspicuous in America than in Great Britain.

This gentleman says, "The taverns in the great towns east of the mountains, which lay in our route, afford nothing in the least corresponding with our habits or notions of convenient accommodation; the only similarity is in the expense. Whatever may be the number of guests, they must receive their entertainment *en masse*, and they must sleep *en masse*, for even night in an *American inn*, affords no privacy. Three times a day the great bell rings, and an hundred persons collect from all quarters, to eat a hurried meal, *composed* of almost *as many dishes*. At breakfast you have fish, flesh and fowl; bread of every shape and kind, butter, eggs, coffee, tea; every thing and more than you can think of. Dinner is much like the breakfast, omitting the tea and coffee; and supper is the breakfast repeated. Soon after this last meal, you assemble once more in rooms crowded with beds: after undressing in public, you are fortunate if you escape a partner in your bed, in addition to the myriads of bugs which you need not hope to escape."

"But the horrors of the kitchen, from whence issue these shoals of dishes, how shall I describe, though I have witnessed them? It is a dark, sooty

hole, where the idea of cleanliness never entered, without a floor, swarming with negroes of both sexes and all ages, who seem as though they were bred there.”\*

Where the fare greatly surpasses in variety and extent, any thing of the kind known in England, (except on very particular occasions,) it is not to be wondered at, that the charge is as high as in that country.

Where the throng is so great, that one hundred per day eat and lodge in the same house, it is not to be expected that each party should have a separate table, and that a separate room should be provided for each one of them. The most that can be done in this case, or should be expected, is to provide separate rooms for the men and women, and to order things so, that those best acquainted with each other should lodge in the same room; unless a steady run of such an extensive business, should enable the innkeeper to meet the great expense of separate rooms for each company, and also separate beds and rooms for each individual.

It matters not whether the kitchen be as Mr.

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\* See his Notes, pages 48 and 49.

Birkbeck describes it, "without a floor," or more properly speaking has a firm artificial floor, formed with clay, &c. properly tempered for the purpose,\* or whether the victuals be cooked in such a kitchen by white or black. The only question worthy of attention is, whether it be clean, well cooked, and handsomely served up. That the whole of this is in general performed in the best order, agreeably to the usual mode of cooking in this country, there can be but little doubt, as the very genteel manner in which respectable Virginians commonly live, compels them to have the negroes employed in the kitchen, (both male and female,) early and well instructed in the art of cookery, &c.

\* I am an old man, and have travelled a good deal, but do not recollect to have been often annoyed by bed bugs, although a few of them prove very troublesome to me; I have always, however, when it could be readily done, put up at decent well kept houses.

There are in this country, no question, as well as in every other country under the sun, if the report of travellers may be relied on, public houses which are badly managed, and some of

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\* These kind of floors for kitchens have been found a considerable safeguard against fire, of which slaves are often not sufficiently careful.



them kept by people, who are nearly, or perhaps quite as filthy as savages.

Mr. B. further says, "I have seen a deformity so general, that I cannot help esteeming it national. I have written it and then erased it, wishing to pass it by ; but it wont do : it is truth, and to the truth I must adhere, cleanliness in houses, and too often in person, is neglected to a degree which is very revolting to an Englishman. America was bred in a cabin, some of her cabin habits have been retained."\* This is certainly as unjust as it is rude.

It puts me in mind, however, of what I well remember to have heard an Englishman, with whom I am acquainted, relate, and which from the general tenour of his conduct I believe to be true. He says that himself and three or four more were travelling from Portsmouth to London, that they could not afford to call for refreshments at the best inns ; this induced them to stop at a small but regularly licensed public house on the road. They were newly arrived from sea, and having eaten salt victuals principally on their voyage, they wanted fresh meat for breakfast, but there was

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\* See his Notes, page 132.

none in the house. They however observed a butcher passing by with mutton. But as it had been previously engaged, they with difficulty procured enough of it for breakfast. The greater part of the meat was prepared and put on a gridiron over the coals. While it was broiling a child came and stood near the fire. The noise and smell made by it, induced my acquaintance to move his chair further off; while he was doing this one of the family seized some instrument, (I have forgotten what it was,) and with it flung the contents dropped by the child into the fire-place, but as it passed over the meat it was rejected by the travellers, and they were compelled to make a very scanty repast on the remaining mutton.

Here I consider it proper to remark, that notwithstanding I was firmly opposed to Great Britain during the revolution, and throughout the late war, I feel no hostility toward her, when she treats us justly. On the contrary, I respect her as a powerful and wise nation, revere her many excellent institutions, and acknowledge we are indebted to her for the rudiments of liberty.

This does not, however, license those from that country, who may visit or come to reside among us, to do as too many of them have done, abuse the Americans. It would really seem as if these

men believed that, as they are from England, comparisons calculated to defame and disgrace the people of this country, would add much to their own personal consequence.

Mr. B. when in the vicinity of his prairie, says, "We are at Princeton, in a log tavern, where neatness is as well observed as in many of the taverns in the city of *Bath*, or *any city*. The town will soon be three years old. The people belong to old America in dress and manners; and would not disgrace old England in the general decorum of their deportment."\*

Now, how happens it that "neatness is as well observed in this log tavern standing near the frontiers, as in the *city of Bath*, or *any other city*?" can it be possible that it so far exceeds the taverns east of the mountains, of which he so loudly complains? Or is Mr. B. enabled to lay prejudice aside when he views interesting objects near his prairie? To comment on this would be useless. But how comes this log tavern ~~so~~ very far to exceed the taverns east of the mountains, when "the people belong to old America in dress and manners?" It seems natural to conclude, that being the same

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\* See his Notes, page 123.

people, they would have carried their filthy cabin habits along with them, and that filth and bed bugs would have abounded, especially as their trade and intimate intercourse with the white hunters, and their still more savage red brethren, do not seem calculated to introduce more refinement than is commonly met with in the Atlantic states.

Again, when speaking of things near his prairie, Mr. B. tells us, "Vincennes contains agreeable people, there is a spirit of cleanliness, and even neatness in their houses and manner of living. There is also a strain of politeness, which marks the origin of this settlement in a way that is very flattering to the French."\* Again, "Vincennes exhibits a motley assemblage of inhabitants as well as visitors. The inhabitants are Americans, French, Canadians and negroes. The visitors, English, Americans, and Indians of various nations. The Indians are encamped in considerable numbers round the town, and are continually riding into the stores and whiskey shops."†

Here again this gentleman finds near his prairie "agreeable people, a spirit of cleanliness, and even neatness, in their houses and manner of living."

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\* See his Notes, page 130.

† See Do. pages 113 and 115.

I do not dispute the fact, nor that of the politeness of which he speaks. It however seems prodigiously strange that Mr. B. should have seen things so differently east of the mountains. There we hear of "dirks, myriads of bed bugs, and neglect of cleanliness in person and houses !"

I must confess, however, that I should not like to live in the neighbourhood of those turbulent, drunken savages, without neighbours to assist me ; especially as Mr. B. says the crossing the Wabash only six miles from his prairie, was a complete departure from civilization. This seems to be encountering perpetual inquietude, and a constant risk of life and property, in order to procure rich bottom land at a low price, in a country where, if he escapes the tomahawk and scalping knife, he cannot escape the fatal diseases to which the climate is annually subject.

This gentleman tells us, when speaking of the Americans, "intellectual culture has not yet made much progress among the generality of either sex, where I have travelled."\* It is a fact too notorious to be controverted, that too many even of those Englishmen who remove to this country,

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\* See his Letters, page 105.

with apparent hostility to the political situation of their own, as did Mr. Birkbeck, seem to think they derive so much information, merely from being born and brought up in it, that they are not only capable of teaching us every thing necessary for us to know, but also licensed to calumniate, and very unjustly abuse us, whenever they consider doing this will increase their own consequence.

It however often happens, that self-interest causes them to expose their folly, by flatly contradicting what they had very unjustly said of us. The following quotation from Mr. Birkbeck's Notes, pages 170 and 171, is a striking instance of this kind; he says, "We are now domiciliated in Princeton. Though at the furthest limits of Indiana, but two years old, and containing about fifty houses, this little town affords a respectable society. It is the county town, and can boast as many well informed, genteel people, in proportion to the number of inhabitants, as any county town I am acquainted with: I think there are half as many individuals who are entitled to that distinction, as there are houses, and not one decidedly vicious character, nor one that is not willing and able to maintain himself."

This does not seem improbable, for in our towns

even near the frontiers, as he justly observes, "The people belong, in dress and manners, to old America," that is, agreeably to his doctrine, belong to the older states east of the mountains. But this being the case, how happens it, that Mr. Birkbeck could not find even in the larger towns in old America, or any where that he had been, in this country, except near to his prairie,\* as many respectable, *well informed*, genteel people, in proportion to the number of inhabitants, as in *any county town* he was acquainted with? On the contrary he finds but little "intellectual culture, cabin habits, cleanliness in houses, and persons neglected, with myriads of bed bugs." The latter, he says, "you need not expect to escape."

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\* To wit, at Vincennes and Princeton.

## CHAP. VI.

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The narrow limits of this work will barely admit of slightly noticing the ruinous situation into which the speculating mammoth farmers of England, have placed the agriculture of that country. The reader, however, may see this subject more fully discussed in my book on Agriculture.

It is very evident, that Mr. Birkbeck belonged to this sect of farmers, for he says, "I had a fancy to occupy here just as many acres as I did at Wanborough; and I have added an hundred and sixty of timbered land to the fourteen hundred I first concluded to farm."\*

Mammoth farming seems to have originated in the celebrated Arthur Young. He asserted that a gentleman possessing more general information and capital than the small farmer, (as he is now called,) was far better calculated to cultivate the

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\* See his Letters, pages 20 and 21.



soil economically, even if he knew nothing of practical agriculture.

In consequence of this opinion becoming too popular among the owners of land, *several small farms* were united into one, sufficiently extensive to enable the mammoth farmer to assume the style and equipage of a gentleman. To effect this the small farmers were turned out to starve, or shift for themselves. In Scotland more especially, whole neighbourhoods were ousted *en masse*, to make room for the mammoth farmers, and the very extensive flocks of sheep kept by many of them. Thus sheep were made to devour, or eradicate men. Some of these poor outcasts became either soldiers or sailors, others flocked into the towns already too crowded with the poor and needy, and a number emigrated. No question, however, but necessity compelled many of them to become ploughmen and labourers to those by or for whom they were oppressed; while many of their pampered employers rode in their coaches, as did Mr. Birkbeck.

But the mammoth farmers, not content with ousting the small cultivators, began (as commonly happens among a number of aristocratic oppressors, whether they be democrats or not) to prey upon each other. This they did by raising the

rents to a prodigious height, by outbidding one another. Neither this, however, nor the too expensive agricultural practices introduced by them, seemed to injure their system very materially, until after the late general peace. They then saw, that "even a Frenchman could supply them, and in their own market too, at but little more than half the price it cost an English farmer to grow the same article."

Petitions in abundance were forwarded to Parliament by the mammoth farmers, stating that wheat could not be grown in England so as to remunerate the cultivator, for less than 10s. sterling, or \$ 2 22 cents per bushel, and they prayed for redress. Their prayer was heard; (although it has been often confidently asserted, that the government of Great Britain was not disposed to favour the interests of agriculture;) a regulation was made, prohibiting the importation of foreign grain, until after the price of that grown in Britain should exceed the high limits therein mentioned. Now, nothing can be clearer than that such a law acts as effectually in favour of the grower, and against the buyer, as would do a bounty to the same amount, given to the farmer for growing the article. Indeed, it seems to be more injurious to the buyer, as it goes far to

ensure to the foreigner, the same enormous price, for the surplus that cannot be grown in Britain.

It might have been seen, however, that it cannot be possible for the agriculture of any nation to prosper, where a middle grade of gentry have been created, to stand between the owners of the soil, and the people who actually cultivate it. The effect is just, or at least nearly, the same, as would arise from establishing a double set of proprietors; for the mammoth farmer's family must be nearly, or perhaps quite as extravagantly fed and clothed, and their children as fashionably educated as those belonging to the owners of the land; while not one of this very expensive family assists in cultivating the soil; of consequence, the whole of the money expended by them, is lost to the agriculture of the country; as less money than the gentleman pays to get the farm cultivated, by hirelings and people to watch and overlook them, would enable the *small farmers*, who, with their families, labour daily on the farm, to effect not only the cultivation of the soil, but also maintain their families, in the plain, but at the same time very comfortable way, in which this class of cultivators commonly live.

To what prodigious advantage then must the

American farmer cultivate the soil ! He in common farms his own land ; and principally, if not altogether, by his own labour and that of his family. Of course has no rent, nor but little, if any, hireling's wages to pay, and his taxes are very trivial.

No marvel, then, that European farmers should flock to this country, especially Englishmen, who speak the same language, and are governed by very similar laws. The money necessary to stock and cultivate a rented farm there, will buy, erect buildings, stock and cultivate one of the same size here ;\* also, pay the passage of the farmer and his family into this country, and procure a sufficiency of food and other necessities for them, until they can be obtained from the land, and the sale of the produce grown on it : depending, however, on gradually rearing, as the land is more extensively cleared, a part of the live stock necessary to a highly improved husbandry. The expense of rearing cattle, sheep, &c. in this way is scarcely felt, by the practical laborious cultivator.

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\* But little capital is necessary, so far as the manual part of cultivation may be concerned ; as nearly the whole of this is done by the farmer and his family.

It is, however, by such a farmer only, that these advantages are to be realised. He will in common handle an axe, and do many other things necessary to farming in the back woods awkwardly. His neighbours, however, will soon teach him all that he does not know. They will also cheerfully assemble, and assist him to build (with astonishing rapidity) a comfortable house, without the aid of a nail, or a particle of iron in any shape or form. In fact, he will find back woodsmen generally, a kind, simple hearted people, and more especially disposed to oblige strangers.

But to return to the aristocratic mammoth farmer. I would first ask Mr. Birkbeck, whether it is more cruel to retain eight or ten families in slavery, who never knew what freedom was, placing them under a system of management, which has been progressively ameliorating their condition, until in general they have a plenty of good wholesome food, with sufficient clothing, (for it has become disgraceful to treat them cruelly,) than it is to turn out eight or ten of the happiest, and most independent small farmers with their families, who are to be found in any other country, except America, to make room for one mammoth aristocratic cultivator, to whom,

perhaps, dire necessity compels many of those outcasts to become day labourers, or hirelings, &c. The fear of being turned out of an employment, which, on the whole, will not afford them as comfortable fare, as is commonly allowed the Virginia negro, causes them to dread the consequence of offending their employer, as much as the slave does the disobliging of his master. The only difference seems to be, that the dread of hunger and nakedness keeps the one in subjection, while the fear of the lash induces the other to behave himself.

Here I request Mr. B. to reflect, that our ideas of happiness or misery depend very much on comparing the present with the past. Of consequence, the distress of the small farmer must be prodigiously aggravated by comparing the height of freedom, plenty and independence, from which he has been so cruelly hurled, with the abject state of servitude by which he is now so sorely oppressed; while the Virginia slave must feel the pleasure naturally arising from being placed in a far better situation, than either he or his ancestors formerly were.

I am no advocate for slavery, as was evinced very many years ago, while living on the eastern

shore of Maryland, by setting all my negroes free. The same I trust will be done by the Virginians, when an increased population of the whites will permit it to be accomplished with safety to themselves.

But how happens it that Mr. Birkbeck, who seems so much opposed to slavery and oppression, did not remonstrate against the monied aristocracy which ousted the small farmers, and in doing this, ruined the agriculture of his country? The answer is obvious. This monopoly of land enabled him to ride in his coach. When the prodigious rise in rent, however,\* and the fall in produce, obliged this gentleman to lay aside this vehicle, he loudly complains of a "villainous

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\* See the London Quarterly Review, No. 37, for the following remarks, to wit, "Sunk however and ruined as she is, (that is England,) in Mr. Birkbeck's opinion, he frankly acknowledges he would have been well satisfied to remain in her, if he had *owned* the estate which he only *rented*—rented too, from one of the 'villainous aristocrats.' It seems however by his own confession, that as long as he held it for about one third of its actual value,\* he imitated his landlord, and lived as if it had been actually his own; and when he at length discovered his mistake, he grew angry, railed against the government and its institutions, and quitted the country. In what manner this imitator of a *gentleman-farmer* lived while things went on smoothly, is pretty broadly glanced at in one of his letters."

\* That is, properly speaking, for one third the price to which it had been raised, by the ruinous infatuating speculations of the aristocratic mammoth farmers.

aristocracy," and observes, "My family had already made several downward movements; we had learned to dispense with the comfort of a carriage; we mounted our horses instead: this was no bad exchange; but the cause of our making the exchange was irksome. From horseback, my daughters cheerfully enough betook themselves to their feet: no great harm in that, only it was by compulsion. So we went down step by step."\*

Now certainly the "villainous aristocracy," be they who they may, (unless Mr. B. alludes to the aristocratic mammoth farmers,) had nothing to do with the enormous rise of rents, nor the fall in produce, neither had the government. On the contrary the latter, (as has been before observed,) to meet the wishes of the mammoth farmers, "screwed up the price of produce," in a way that, in effect, very heavily taxed the consumers of it. It would therefore appear, that this gentleman has only to blame the very wild and mistaken speculations of the mammoth farmers, for taking off the wheels from his coach.†

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\* See his Letters, page 31.

† How sharp sighted are most men to see or merely to imagine they see, oppression in those above them. While they are quite as blind to the cruel means employed to oppress those below them, if the oppression happens to be in their favour, as David was, until Nathan said unto him, thou art the man.



This speculation, in the case of Mr. B. trebled the rent of the land occupied by him. How far it might have been raised previously to this beyond the usual rates, when produce was at a fair price, to wit, 5s. 6d. sterling or \$ 1 22 for wheat per bushel, we are not informed. A treble rent however is sufficient, to (eventually) ruin any farmer, when he is compelled to sell the produce of the soil, at the prices which obtain when the land rented for two thirds less.

This gentleman also says, "Scientific pursuits are, generally speaking, unknown where I have travelled. Science is not, as in England, cultivated for its own sake. What yawning, and stretching, and painful restlessness, they would be spared, if their time was occupied in the acquisition of useful knowledge."\*

Sir H. Davy tells us, "It is not uncommon to find a number of changes rung upon a string of technical terms, such as oxygen, hydrogen, carbon, and azote, as if science depended on words rather than things; but this is in fact, an argument for the necessity of the establishment of just principles on the subject."\* Again, "It is probable, that, as yet, we are not acquainted with any of the

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\* See his Notes, pages 152 & 153. † See his Agr. Che. page 26.

“true elements of matter.”\* And again, “Agricultural chemistry has not yet received a regular and systematic form,” the “science is as yet in its infancy.”†

Notwithstanding these acknowledged and highly important facts, however, there are too many gentlemen farmers, both in England and this country, who, having obtained a smattering only of the theories of science, have employed much time and paper, in very earnestly endeavouring to persuade the plain practical farmer, that he cannot prosper extensively, unless he puts himself, and the management of his agricultural concerns, under the direction of science.

Common sense and practical observation, however, clearly determine, that he should not be directed by the professors of science, nor by any other set of men in the world, to pursue any practice, which has not been clearly demonstrated to be right. More especially, if the practice recommended be opposed to nature and reason, which has but too often happened.

It is probable that Sir H. Davy's Agricultural Chemistry may be justly considered the best work of the kind that has yet appeared. Still some of

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\* See his Agr. Che. page 43. † See do. pages 3 and 4.

his highly important theories, have been proved erroneous by common sense and observation, without the aid of what is commonly called science.\*

But here I would ask Mr. Birkbeck, what is science? Certainly not the laboriously building on false principles, abstruse systems, by those who, this gentleman says, "cultivate science for its own sake," or, to be delivered from "yawning, stretching," &c. &c. For were the theories of these philosophers correct, they would demonstrate what they advance, and the diversity of opinion which now prevails on the same subjects would vanish.

Neither does science consist in drawing erroneous conclusions from just principles, as did Mr. B. in the case of the sallow complexion communicated to the hunter by the diseases of the country,† in which it had been his misfortune to choose his hunting grounds, when he might have pursued his profession, in the immense tracts of uncultivated lands still remaining in the back parts of this, and other states bordering on, and near to the Atlantic, and been healthy, and nearly as hardy, as the game pursued by him. Of consequence, science is not what this gentleman seems to think it is, to wit,

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\* See my book on Agriculture. † Illinois.

"ringing a number of changes upon a string of technical terms, such as oxygen, hydrogen, carbon, and azote." And until the professors of it build and establish their theories on "certain and self-evident principles, they should not be admitted."

In proof of this, Dr. Darwin has attempted to establish an hypothesis, that the heart wood of a tree is dead, without first demonstrating the fact; and Sir H. Davy, and many other learned gentlemen, have followed on in this track. Now it has been clearly demonstrated that the heart wood of a tree is alive, and the annual growths are increasing yearly in size, until old age causes the tree to decline.\* Therefore the numerous reveries formed on Dr. Darwin's hypothesis, are calculated to darken knowledge, in place of promoting science.

But to come nearer the point, "Science is *knowledge*, learning, skill; *properly* that which is founded on *clear, certain*, and self evident principles." Now if science be knowledge, and the knowledge of any fact cannot be useful, until we know how to employ it properly, I would ask, in what department of useful science is America behind England?

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\* See my book on Agriculture.

Have her statesmen displayed less wisdom, and inflexible integrity, in executing the trusts committed to their care, than those of England?

Are her laws less wise, just or humane than those of Britain?

Are not our professional men, who reside, where population has been sufficiently extensive to call their talents into full exercise, as well informed, and quite as respectable, as are the same professions in England?

Are our merchants more deficient in knowledge or enterprise, or less correct than those of that country?

Are not our ships at least equal to any in the world?

Would a well informed English gentleman, who wished to cross the Atlantic, or to take a voyage in any other direction, repose greater confidence in the energy, nautical skill, or genteel deportment, of a British, than of an American commander?

Has our army or navy manifested less skill or prowess than those of England? Of this the world may readily judge, by what has recently happened on the Lakes, the Ocean, New Orleans, &c. &c.

That the inventive powers of Americans

are not behind those of Englishmen, has been evinced, by the various inventions to save labour, promote trade, navigation, &c.

We may be more profitably employed in cultivating the soil, than in manufacturing very many of the articles used by us. We therefore have not attempted to rival Great Britain extensively in this branch of her industry. Our talents and ingenuity, however, have not been less conspicuous in manufacturing such articles, as we have been clearly convinced it was our interest to make.

Household manufactures, such as have been commonly made in this way, ought to be promoted in every family, to the utmost extent, consistent with the proper management of their more important concerns. This practice promotes industry by filling up the vacant moments profitably, and very often finds employ for those who are not so well qualified for other business.

The families which are in the diligent habit of this invaluable practice, commonly become wealthy, while those who rely on stores for all the goods consumed by them, often get poor and needy, although many of the latter tell us, they can buy goods much cheaper than they can make them. They do not, however, sufficiently consider what a great deal of time is saved by this kind of industry, that would otherwise be lost—

worse than lost, spent in dress, and idle visiting from house to house.

These, with such articles as can be made fully as cheap in this country, as they can be imported, are all that ought to be manufactured by us, excepting such as are indispensable to our support, or defence in time of war. A bounty should be given for manufacturing the latter, provided they cannot be readily obtained (when most wanted) without.

If this doctrine be admitted, it will be readily granted, that Great Britain has, and will exceed us, in manufacturing such articles as we may buy from her, or elsewhere, more profitably than we can manufacture them for ourselves. This encourages an exchange of articles which ought to cement, and perpetuate, that bond of friendship, which cannot be broken, without very material injury to them and us.

I have noticed before the highly important improvements, that have of late been made in the agriculture of this country, especially in Virginia. They prove that the talents which planned, and the energy that executed them, are not exceeded by the farmers in England; especially as this has been effected without the parade, and the enormous useless expense too commonly employed in

England; which, with the very inconsiderate speculation in the rent of lands, have induced the government to prop up the agriculture of that country, (as has been mentioned before,) by regulations which, in effect, severely taxed the rest of the community, to prevent a general bankruptcy among the farmers.

Now if "science be *knowledge*, founded on *clear, certain, and self-evident* principles," it does not appear that we are behind Great Britain, in any "scientific pursuits," that would be useful in this country. On the contrary, it clearly appears, that we have made so many important improvements of our own, and so very highly improved many of those which originated in England, that she might now learn quite as much of us, as we could learn from her. Why then should Mr. Birbeck assert, that "Scientific pursuits are, generally speaking unknown, (in America,) where he has travelled."\*

From what has been said of the agriculture of this country, pages 120, 1, it is evident that there is no nation nor set of people in the world, who can afford to sell the produce of the soil as low, either at home or in a foreign market, as we can. Another very strong proof of this highly important fact is, that the farmers in the western country,

\* See his Notes, page 152.



have been able not only to live independently, but also, (when industry and frugality prevailed,) to pay for their land, notwithstanding they have been constantly so circumstanced, as to be obliged to sell the produce of it, (rating an average of years,) at more than one half less, than the same kinds of produce sold for east of the mountains. The fact is, that the plain practical farmer east of the mountains, who farms his *own* land, principally by his *own* labour and that of his family, can live and prosper, even should he be compelled to sell the products of the soil, for considerably less than they have been usually sold at, in the western country.

But here it may be said by the farmer, who ploughs and crops perpetually, with but little attention to grass and manure, this cannot be. Our exhausted soils will not yield half as much produce, as may readily be obtained from the fresh, deep and rich prairies on bottom lands, west of the mountains. But it has been, however, clearly demonstrated before, that, by the judicious use of gypsum and dung, these exhausted soils may be readily, and with astonishing rapidity improved, so as to yield more produce, than can be obtained from the deep and rich bottom grounds, west of the mountains, without the use of dung. Nay, more, it has been shown, that if

be employed on the rich deep bottoms, as well as on the ridge lands, the average produce, taking several years together, will be in favour of the latter.

Why, then, has so much been said of late, of the miserable condition of this highly favoured country? Do we wish to discourage those Europeans, who are suffering sadly from the effects of a crowded population, and an almost perpetual warfare, from taking refuge among us, by holding out obstacles that really do not exist?

Nor do we wish to induce our legislators to introduce manufactories, to consume our produce at higher prices, than we suppose may be hereafter obtained for it,\* in the usual way; since to effect this purpose, we must eventually pay vastly more than is gained on the increased price of the produce, either directly, or indirectly, to enable the manufacturer here, to make those articles as cheap as we can procure them from where a crowded population, or a very extensive capital, or other favourable circumstances, enable those engaged in it to furnish the article, or articles, at a much lower rate.

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\* Of the present prices generally, we certainly have not the least cause to complain; especially as the rest of the world seems to be generally blessed with peace and plenty.

This would be acting too much like the sage Mr. Birkbeck talked of doing at first, to wit, of farming very extensively; notwithstanding common sense and observation clearly pointed out, that no man who had to hire all the labour could farm in the western country, without sinking money. This important fact has been confirmed by his friend Mr. Hulme, who says, Mr. B. "had done nothing in the cultivating way, but make a good garden, which supplies him with the only things that he cannot purchase, *and purchase too, with more economy than he could grow them.*"\*

Before, however, we attempt to regulate trade, (except to counteract pointed hostility to our commerce,) we should consider what this system has done for England. In the first place, it has introduced an astonishing number of custom-house and revenue officers, tidewaiters and other understrappers; also, a prodigious number of ships and vessels of war, to prevent smuggling, and to enforce, at home and abroad, the regulations made in commerce. This crooked and very injudicious policy, requires such an immense naval and military force to defend and enforce it, that England has assumed the appearance of a military power, more than that of a nation governed by just and equitable laws. Added to

\* See Mr. Cobbett's Year's Residence in the U. S. page 333.

this, almost every thing has become artificial in that country, by pursuing an extensive system of imposts, drawback, bounties, and restrictions. The one depending on the other, and the whole propped by props upon props, until at length she has been compelled to prop her agriculture also.

Now, if popular clamour, or another cause, compels the legal authority to remove suddenly any one or more of the props, on which the whole artificial system greatly depends, there may be such a mighty crash, as will eventually overturn the whole, and the government with it.

In fact, the almost perpetual wars in which Great Britain has been engaged, principally (let the ostensible cause have been what it may) to enforce her regulations and restrictions on trade, have accumulated a debt of such a prodigious magnitude, that the interest alone arising on it, is a very great burthen to the nation; and, notwithstanding the many very ingenious arguments employed, to convince the people, that it may be managed, without injury to the political existence of the nation, it seems to bear a very threatening aspect. This should teach us to think, and that very seriously too, before we adopt, or even slightly imitate her system of political economy, in the regulation of commerce, &c. &c.

Wealth has been for many years flowing with

great rapidity into this country. This has caused too many to relax very greatly their former habits of industry and economy, and some to abandon them altogether. It is, therefore, not to be wondered, that when we can no longer obtain a larger share of the commerce of the world, than is justly due to our capital and enterprize, that multitudes should be greatly embarrassed by the sudden change; especially, as we have also to encounter the destructive effects produced by a prodigious multiplication of banking institutions. It is useless, however, to attempt to redress these grievances by regulations in commerce: particularly by such as are calculated to promote manufactories, at the ultimate expense of agriculture, when it is obvious that the only regulation that can do us any material good, is to practise our former habits of industry and economy. These habits, with a moderate share of prosperity, are far better calculated to secure the independence, and lasting happiness of our country, than an enormous influx of wealth.

Mr. Wm. Cobbett, in his second letter to Morris Birkbeck, esq. says, "In case of a war with England, what would become of your market down the Mississippi? That is your sole market, that way your produce must go; yet that way your produce could not go, unless

this nation were to keep up a navy equal to that of England. To defend the country from invaders, I know the people always will; but I am not sure, that they would like internal taxes sufficient to rear and support a navy, sufficient to clear the Gulf of Mexico of English squadrons. In short, it is my decided opinion, that the sooner the banks of the Ohio, the Wabash, and Mississippi are pretty thickly settled, the sooner the *Union* will be placed in jeopardy. If a war were to break out with England, even in a few years, the lands of which the Mississippi is the outlet, would lose a great part of their value. Who does not see in this fact a great cause of *disunion*? On this side the mountains, there are 1,200 miles of coast to blockade; but you gentlemen prairie owners, are like a rat that has but one hole to go out and to come in at. You express your deep rooted attachment to your adopted country, and I am sure you are sincere, but still I may be allowed to doubt, whether you will cheerfully wear bear-skins, and gnaw your meat off the bones,\* for the sake of any commercial right that the nation might go to war about. I know that you would not *starve*; for coffee and tea are not necessary to man's existence; but

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\* These expressions are too strong, for we can make our own cloths, knives, forks, &c. &c. when they cannot be had on better terms.

you would like to sell your flour and pork, and would be apt to discover reasons against a war that would prevent you from selling them.”\*

Both the Atlantic and western states seem to be highly interested in the above observations. It would appear, that the only probable band of lasting union, between the countries east and west of the mountain, is a communication by water across the Allegheny.—This should be effected, in the first instance, in that direction best calculated to convey the produce of the western country, by water, to the greatest number of ports in the Atlantic states, from which it might be shipped to foreign markets.

The natural consequence of securing this first grand object is, that in process of time other communications of the same kind will be opened, in such directions across the mountain, or through the interior of the states east of it, as will best increase the number of ports from which the produce of the western country may be shipped.

The Allegheny is low in Pennsylvania, only about 1300 feet above the plain below. Some of the waters running east and west from the top of this dividing ridge,† interlock or pass by

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\* See his Year's Residence in the U. S. pages 407 & 408.

† If the Allegheny was no higher than it is in Pennsylvania, it would have been scarcely called a mountain. Especially as there are

each other. It is, therefore believed that a communication by water across it, might be readily effected.

There are several ready routes by which a water communication may be established between the western country and the Lakes, (some of which have been already mentioned.) Much of the produce of the western country will find its way through them, and by the St. Lawrence into the Atlantic, unless proper means be speedily taken to prepare a vent for it, by a route more consistent with the interests of the eastern and western states.

This measure has been powerfully urged by some of our most respectable citizens. Still, however, nothing has been done, although it is of more consequence to the states east and west of the mountain, and to the general government, than any other thing that has been proposed since the constitution of the United States was formed. For, however excellent this constitution may be, it cannot unite as one people, the citizens of the eastern and western states, unless their union is also cemented, by an extensive intercourse originating in mutual interest.

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in the wide distance across it, (say about from 90 to 150 miles) much valuable hill and dale land, and adjoining the rivers and larger creeks passing both east and west through it, a good deal of deep and rich bottom grounds.



Merchants, with considerable capital, might be induced to settle in New Orleans, if it was healthy. So exceedingly sickly is it, however, that but few if any mercantile men will venture to settle there, except those who have but little, and are determined to risk health and life to better their circumstances. This being the case, it must be a long time, (if it should ever happen,) before the merchants in New Orleans will possess a sufficient capital, to introduce an emulation, which will excite them to give generous prices for the produce carried to it. It would therefore seem, that the western country must groan under the evil at least for a long while yet to come, unless some better way is provided by which the produce may be sent to a foreign market; especially as there is no situation on the Mississippi, where a large commercial city could be built, with any tolerable prospect of health to the inhabitants. Added to these things, the navigation of the Mississippi is not only long, but also rendered very dangerous, by the fixed timber called planters and sawyers, the shifting of the channel, falling in of the banks, &c. &c.

Mr. Birkbeck says, "two dollars saved in Pennsylvania, will purchase an acre of good land in Illinois."\* Now why should the saver of this

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\* See his Notes, page 165.

money travel to such a distance to lay it out, where himself and his family, would be subjected to the risk of the tomahawk and scalping knife, and where he need not hope to escape the calamity arising from living in a sickly country? He can buy land in the back parts of Pennsylvania quite as low, where neither of these evils is to be dreaded; and on which it has been clearly shown, he may with proper management grow, (taking one year with the other,) more produce, and sell it for as much again money, as can be obtained in Illinois.

This gentleman says, "The idea of exhausting the soil by cropping, has not yet entered into the estimates of the western cultivator. Manure has been known to accumulate until the farmers have removed their yards and buildings, out of the way of the nuisance. They have no notion of making a return to the land, and yet there seems to be *no bounds* to its fertility."\* In another part of the same book, however, he says, "Had we remained in the state of Ohio, we must have paid from 20 to 50 dollars per acre, for land, which is technically called 'improved,' but is *in fact* deteriorated."†

Thus we see, that notwithstanding Mr. B. holds out the idea that the soil of the western country

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\* See his Notes, page 20.    † See do. page 2.

*Can be done in the same way.*

was not to be exhausted, and that there seemed to be *no bounds* to the *fertility* of it, he sees and talks very differently, when giving his reasons for not purchasing where, as he tells us, the land "is technically" called "improved" but "is in fact deteriorated." This is not however the first time by many, that this gentleman has contradicted his own inconsiderate assertions. It has long been a practice throughout the United States generally, for such farmers as are in the habit of cropping perpetually, without attention to grass and manure, to suffer the dung to accumulate round their barns and stables in such quantities, as to render egress and regress difficult, and some of them have preferred removing their barns, &c. or building others, to hauling out the dung, although their fields have been long incapable of producing half as much as they did, when the land was first cleared from its wood. Of consequence this unpardonable piece of negligence is no proof in any country, that the soil has not been long, and very considerably exhausted or "deteriorated."

THE END.

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